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1890

THE
ACADEMY OF SCIENCE
OF SAINT LOUIS.

LIBRARY OF

Illinois State

LABORATORY OF NATURAL HISTORY,

URBANA, ILLINOIS.

1890.

THE
ACADEMY OF SCIENCE
OF SAINT LOUIS.

1890.

FOUNDERS OF THE ACADEMY.

JANUARY, 1856.

GEORGE ENGELMANN, M.D.,
HIRAM A. PROUT, M.D.,
M. M. PALLAN, M.D.,
B. F. SHUMARD, M.D.,
W. H. TINGLEY, M.D.,
S. POLLAK, M.D.,
W. M. MCPHEETERS, M.D.,
CHARLES P. CHOUTEAU, ESQ.,
C. A. POPE, M.D.,
C. W. STEVENS, M.D.,
A. WISLIZENUS, M.D.,
NATHANIEL HOLMES, ESQ.,
M. L. LINTON, M.D.,
J. H. WATTERS, M.D.,
J. B. EADS, ESQ.

CHARTER.

AN ACT TO INCORPORATE "THE ACADEMY OF SCIENCE
OF ST. LOUIS."

*Be it enacted, by the General Assembly of the State of
Missouri, as follows:*

SECTION I. That GEORGE ENGELMANN, HIRAM A. PROUT, NATHANIEL HOLMES, BENJAMIN F. SHUMARD, CHARLES W. STEVENS, JAMES B. EADS, MOSES M. PALLER, ADOLPHUS WISLIZENUS, CHARLES A. POPE, CHARLES P. CHOUTEAU, WILLIAM M. MCPHEETERS, and others — who have heretofore formed an association in the city of St. Louis, styled "THE ACADEMY OF SCIENCE OF ST. LOUIS," having for its object the advancement of Science, and the establishment in said city of a Museum and Library for the illustration and study of its various branches — their associates and successors, are hereby declared and created a body corporate by the name and style aforesaid; and by that name they shall have perpetual succession, may sue and be sued, implead and be impleaded, in all courts of competent jurisdiction; may acquire by purchase, gift, or devise, receive and hold, property, real, personal, or mixed, and the same exchange, sell, lease, or otherwise dispose of, as they may deem proper, for the objects and purposes aforesaid, and not otherwise; may have a common seal, and break or alter the same at pleasure; and may make such constitution, regulations,

and by-laws, as may be requisite for the government thereof, not being contrary to the laws of the land, and may alter the same at pleasure.

SEC. 2. The constitution and by-laws of said association now in operation shall govern the corporation hereby created until the same shall be regularly altered or repealed, and the present officers of said association shall be officers of this corporation until their respective terms of office shall expire, or be vacated in pursuance thereof.

SEC. 3. The property and effects now belonging to the association aforesaid shall, on acceptance of this charter, thereby become vested in the corporation herein created, and all property owned or held by this corporation shall be exempt from taxation so long as the same shall continue to be held and used in good faith for the objects and purposes aforesaid; but whenever any real estate of the corporation shall be leased to any other person or persons, the leasehold interest therein shall be taxable to the lessee or lessees thereof, as in other cases.

SEC. 4. The members of this association acquire no individual property in the real estate, cabinets, library, or other effects thereto belonging, which are hereby declared to be fully vested in the corporation as such; but the interest of the members therein shall be usufructuary merely, and shall not be transferred, assigned, hypothecated, or otherwise disposed of, than as hereinbefore provided.

SEC. 5. Whenever this corporation shall have failed to answer the purposes for which it was created, or shall suffer its charter to be forfeited by the law of the land, its cabinet collections and library shall revert to and become vested in the City of St. Louis, to be deposited with some public institution in said city, for general use and inspection, under such regulations as the said city may prescribe.

SEC. 6. This act shall be taken as a public act, and be in force from and after its passage.

R. C. HARRISON,
Speaker of the House of Representatives.

H. JACKSON,
President of the Senate.

Approved, January 17, 1857.

TRUSTEN POLK.

CONSTITUTION.

ARTICLE I.

NAME.

SECTION I. This Association shall be called "THE ACADEMY OF SCIENCE OF ST. LOUIS."

ARTICLE II.

OBJECT.

SECTION I. It shall have for its object the promotion of science.

SEC. 2. As means to this end the Academy shall hold meetings for the consideration and discussion of scientific subjects; shall take measures to procure original papers upon such subjects; and shall, as often as may be practicable, publish its transactions. It shall also establish and maintain a cabinet of objects illustrative of the several departments of science, and a library of works relating to the same. It shall also place itself in communication with other scientific institutions.

ARTICLE III.

MEMBERS.

SECTION I. The *Academy* shall consist of *Active Members*, *Corresponding Members*, *Honorary Members*, and *Patrons*.

SEC. 2. *Active Members* shall be persons interested in science, and they alone shall conduct the affairs of the Academy.

SEC. 3. Persons not living in the City or County of St. Louis who may be disposed to further the object of the Academy by original researches, contributions of specimens, or otherwise, may be elected *Corresponding Members*.

SEC. 4. Persons not living in the City or County of St. Louis may be elected *Honorary Members* by virtue of their attainments in science.

SEC. 5. Any person conveying to the Academy the sum of one thousand dollars (\$1000), or its equivalent, may be elected a *Patron*.

SEC. 6. Persons may be admitted to any of the preceding classes of membership, or dismissed therefrom, in accordance with the regulations prescribed by the By-Laws.

ARTICLE IV.

OFFICERS.

SECTION I. The officers of the Academy shall be chosen from the active members, and they shall consist of a

President,
1st Vice-President,
2nd Vice-President,
Recording Secretary,
Corresponding Secretary,
Treasurer,
Librarian,
Board of Curators,
Two Directors.

Said officers shall be elected at the time and in the man-

ner prescribed by the By-Laws, and shall hold their offices for one year, or until their successors are elected.

SEC. 2. The duties of these officers shall be such as are customary and as prescribed by the By-Laws.

ARTICLE V.

COUNCIL.

SECTION 1. The President, the two Vice-Presidents, the Recording Secretary, and the two Directors shall constitute the Council of the Academy.

SEC. 2. The duties of the Council shall be to consider all plans conducive to the welfare of the Academy; to audit all bills and order payment of such as they may approve; to consider all applications for membership; and to administer the business of the Academy, subject to the Constitution and By-Laws and to such instructions as may be given by the Academy.

ARTICLE VI.

MEETINGS.

SECTION 1. The meetings of the Academy shall be held at such times and places as the By-Laws may direct.

ARTICLE VII.

AMENDMENTS.

SECTION 1. Amendments to this Constitution shall be submitted in writing at a regular meeting. They shall be open to discussion until at least the second meeting thereafter. They may then be adopted by a two-thirds vote of a letter-ballot, conducted in the manner prescribed by the Council.

BY-LAWS.

I. REGULAR MEETINGS.

The regular meetings of the Academy shall be held on the first and third Monday evenings of every month, unless otherwise ordered by the Council.

II. SPECIAL MEETINGS.

Special meetings may be called by the President at his discretion, and shall be called by him on the written request of three or more members.

III. NOTICE OF MEETINGS.

The Recording Secretary shall send a notice of each meeting to every active member at least two days before such meeting.

IV. QUORUM.

Seven members shall constitute a quorum.

V. ORDER OF BUSINESS.

The order of proceeding, at the regular meetings of the Academy, shall be as follows:

1. Minutes of the last meeting.
2. Report of the Council.
3. Reports of Committees.
4. Report of the Corresponding Secretary.
5. Donations to the Museum and Library.
6. Written Communications.

7. Verbal Communications.
8. Deferred Business.
9. New Business.
10. Elections.
11. Proposals for Membership.
12. Adjournment.

VI. CORRESPONDING SECRETARY.

It shall be the duty of the Corresponding Secretary to conduct the correspondence, and report to the Academy.

VII. TREASURER.

The Treasurer shall collect all moneys due the Academy; be custodian of all its funds, and pay such bills against the Academy as the Council shall approve. The Treasurer shall deposit the moneys and invest the funds of the Academy in its name by and with the advice of the Council. Besides his annual report to the Academy, the Treasurer shall make such further reports and statements concerning the financial affairs of the Academy as the Council may from time to time require. Before entering upon his duties, the Treasurer shall give bond in such sum as may be required by the Council.

VIII. LIBRARIAN.

The Librarian shall take charge of all books belonging to or deposited with the Academy, and shall be responsible for the same; he shall keep a catalogue thereof, in which the names of contributors shall be inscribed; he shall superintend the distribution of all the publications of the Academy.

IX. COUNCIL.

The Council shall act as a publication committee; shall prepare a programme for each meeting, and may make

rules and regulations for their own guidance, not inconsistent with the Constitution and By-Laws.

X. ELECTION OF OFFICERS.

A nominating committee of three active members who are not officers of the Academy shall be elected at the first regular meeting in December. This Committee shall nominate candidates for all the offices for the ensuing year, and report the nominations at the following meeting, when other nominations may be made by any active member. The Recording Secretary shall mail to every active member a list of the nominees for office, at least ten days preceding the annual meeting. The polls shall be closed at 6 p. m. on the day of the annual meeting, after which the nominating committee shall count the ballots and announce the results to the Academy. A plurality of the votes cast shall suffice to elect.

XI. VACANCIES.

A vacancy in any office shall be filled by election conducted in the same manner as the annual election.

XII. ELECTION OF MEMBERS.

A candidate for admission to the Academy shall be proposed by not less than two members at any regular meeting. The proposal must then be referred to the Council, and if upon examination they shall find the candidate to be eligible and worthy of membership, they shall order the question as to his admission to be submitted to the Academy by ballot. If there be five votes in the negative, the candidate shall be rejected, and shall not be again voted upon for twelve months after such rejection. But if the number of negative votes be less than five, the candidate shall be elected, but shall not be considered a member until he shall have paid the initiation fee and the

annual dues for the current year. Any failure to pay the initiation fee and annual dues within thirty days after the candidate has been notified of his election, shall work a forfeiture of all rights under said election, if the Council shall so determine. No entry shall be made on the record of the rejection of any candidate.

XIII. RESIGNATION OF MEMBERS.

Any member whose dues have been fully paid, may withdraw from the Academy by a written resignation. Non-payment of dues for one year or longer may be treated as equivalent to resignation; but before any member is dropped from the rolls for delinquency, he shall be entitled to not less than four weeks' notice.

XIV. EXPULSION OF MEMBERS.

Upon the written request of five members, that, for cause stated, any member be expelled, the Council shall consider the matter, and, if they deem it best, shall advise the member that his resignation will be accepted. He shall, however, have the right to demand and shall be given a copy of the charges against him, and shall have a reasonable time to present a written defense. The Council may then pass finally upon the matter, and if resignation has not been tendered, or a satisfactory defense made, may by an affirmative vote of four of their number expel the member, in which case they shall notify him and the Academy of their action, and his name shall be at once dropped from the list of members.

XV. INITIATION FEE AND DUES.

Active members shall pay an initiation fee of five dollars, and annual dues of six dollars, payable at the beginning of each year.

XVI. HONORARY MEMBERS AND PATRONS.

Honorary Members and Patrons shall be recommended by the Council, and elected by the unanimous vote of the members present at any regular meeting.

XVII. PUBLICATIONS.

Patrons and all active members not in arrears shall be entitled to one copy of all the publications of the Academy issued subsequent to their election. Authors of papers shall be entitled to twenty extra copies of their individual papers.

XVIII. AUTHORITY.

On all points of order and procedure, not provided for in the Constitution and By-Laws, *Robert's Rules of Order* shall be the authority.

XIX. AMENDMENTS.

These By-Laws may be amended by a two-thirds vote of all the members present at any regular meeting, provided notice of the proposed amendment shall have been mailed to every member at least one week before the vote thereon is taken.

PAST PRESIDENTS.

GEORGE ENGELMANN,	Elected	Mar. 10, 1856.
BENJAMIN F. SHUMARD,	"	Jan. 12, 1857.
BENJAMIN F. SHUMARD,	"	Jan. 11, 1858.
ADOLPHUS WISLIZENUS,	"	Jan. 10, 1859.
HIRAM A. PROUT,	"	Jan. 2, 1860.
GEORGE ENGELMANN,	"	Jan. 7, 1861.
GEORGE ENGELMANN,	"	Jan. 6, 1862.
GEORGE ENGELMANN,	"	Jan. 5, 1863.
GEORGE ENGELMANN,	"	Jan. 4, 1864.
GEORGE ENGELMANN,	"	Jan. 2, 1865.
GEORGE ENGELMANN,	"	Jan. 8, 1866.
GEORGE ENGELMANN,	"	Jan. 7, 1867.
BENJAMIN F. SHUMARD,	"	Jan. 1, 1868.
BENJAMIN F. SHUMARD,	"	Jan. 4, 1869.
GEORGE ENGELMANN,	"	Jan. 3, 1870.
JOHN B. JOHNSON,	"	Jan. 16, 1871.
JAMES B. EADS,	"	Jan. 4, 1872.
JAMES B. EADS,	"	Jan. 6, 1873.
WILLIAM T. HARRIS,	"	Jan. 5, 1874.
WILLIAM T. HARRIS,	"	Jan. 4, 1875.
CHARLES V. RILEY,	"	Jan. 3, 1876.
CHARLES V. RILEY,	"	Jan. 15, 1877.
GEORGE ENGELMANN,	"	Jan. 7, 1878.
GEORGE ENGELMANN,	"	Jan. 6, 1879.
GEORGE ENGELMANN,	"	Jan. 5, 1880.
GEORGE ENGELMANN,	"	Jan. 3, 1881.

GEORGE ENGELMANN,	Elected	Jan. 3, 1882.
GEORGE ENGELMANN,	"	Jan. 2, 1883.
GEORGE ENGELMANN,	"	Jan. 7, 1884.
FRANCIS E. NIPHER,	"	Jan. 5, 1885.
FRANCIS E. NIPHER,	"	Jan. 4, 1886.
FRANCIS E. NIPHER,	"	Jan. 3, 1887.
FRANCIS E. NIPHER,	"	Jan. 16, 1888.
FRANCIS E. NIPHER,	"	Jan. 7, 1889.
FRANCIS E. NIPHER,	"	Jan. 6, 1890.

ACTIVE MEMBERS.

JUNE, 1890.

Allen, E. T.,	404 Market Street.
Alt, Dr. A.,	3036 Locust Street.
Barck, Dr. C.,	948 Chouteau Ave.
Bartlett, Geo. M.,	212 Pine Street.
Baumgarten, Dr. G.,	2643 Chestnut Street.
Boislinière, Dr.,	2303 Chestnut Street.
Breckinridge, Sam'l.,	6th and Locust Streets.
Broadhead, Jas. O.,	14 N. 4th Street.
Brown, D. S.,	1401 Lami Street.
Carpenter, Geo. O., Jr.,	2nd and Cass Avenue.
Chouteau, C. P.,	3rd and Pine Streets.
Comstock, Dr. T. G.,	14th and Washington Ave.
Curtman, Dr. C. O.,	3718 N. 9th Street.
Engelmann, Dr. G. J.,	3003 Locust Street.
Engler, E. A.,	Washington University.
Evers, Dr. E.,	1861 N. Market Street.
Frank, Christian,	1600 Franklin Avenue.
Gale, H. B.,	Washington University.
Glasgow, Dr. Wm. C.,	2847 Washington Avenue.
Glasgow, Wm., Jr.,	3016 Glasgow Place.
Gray, M. L.,	517½ Chestnut Street.
Gregory, Dr. E. H.,	3525 Lucas Avenue.
Hambach, Dr. G.,	Washington University.
Harrison, Edwin,	520 Olive Street.
Hayes, Richard,	Polytechnic Building
Hitchcock, Henry,	404 Market Street.
Hulbert, Dr. G.,	3026 Pine Street.
Hurter, Julius,	2346 S. 10th Street.
Ives, H. C.,	Washington University.
Jewett, E. C.,	U. S. Assayer, City.
Johnson, Dr. J. B.,	22nd and Locust Streets.

Johnson, R. D'O.,	Pinas Altas, N. M.
Kinealy, J. H.,	N. C. Col. of A. & M. Arts, Raleigh, (N. C.)
Kinner, Dr. H.,	1103 Autumn Street.
Knight, Sam'l,	Broadway and Olive Street.
Kolbenheyer, F.,	1208 Dillon Street.
Kriekhaus, Aug.,	410 S. Main Street.
Krall, G. W.,	Manual Training School.
Kromrey, Hugo,	513 Walnut Street.
Ladd, A. E.,	Jefferson City, Mo.
Leete, Dr. Jas. M.,	2912 Washington Avenue.
Lemoine, Dr. E. S.,	17th and Washington Ave.
Letterman, G. W.,	Allenton, Mo.
Leslie, A. M.	915 Olive Street.
Ludeking, Dr. Chas.,	Washington University.
McKittrick, Hugh,	2913 Locust Street.
Moore, Robert,	Laclede Building.
Nipher, F. E.,	Washington University.
Pammel, L. H.,	Ames, Iowa.
Pollmann, Dr. L. P.,	2822 N. 14th Street.
Potter, W. B.,	Washington University.
Pritchett, H. S.,	Washington University.
Pulsifer, Wm. H.,	2nd and Cass Avenue.
Raeder, F. W.,	405 N. 6th Street.
Rankin, E. E.,	Washington University.
Sander, Dr. Enno,	129 S. 11th Street.
Schoelch, Louis,	2823 Nebraska Avenue.
Seddon, J. A.,	77 E. May Street.
Seddon, W. L.,	77 E. May Street.
Smith, Holmes,	Washington University.
Snow, M. S.,	Washington University.
Speck, Judge Chas.,	1206 Morrison Avenue.
Spencer, Dr. H. N.,	2725 Washington Avenue.
Spiegelhalter, Dr. Jos.,	1100 Chouteau Avenue.
Thacher, Arthur,	Washington University.
Tivy, Wm. H.,	210 N. 2nd Street.
Todd, Dr. C. A.,	2645 Washington Avenue.
Toensfeldt, John,	912 S. 9th Street.
Trelease, Wm.,	Washington University.

Turner, J. W.,	717 Garrison Avenue.
Wheeler, H. A.,	Washington University.
Wheeler, O. B.,	1515 Lucas Place.
Widmann, Otto,	3826 S. Broadway.
Winslow, Arthur,	Jefferson City, Mo.
Witt, T. D.,	E. Jaccard Jewelry Co.
Woodward, A. E.,	Jefferson City, Mo.

CORRESPONDING MEMBERS.

*Those marked * have died. The dates given are the dates of election to membership. The addresses given are the addresses at the time of election, unless notification of change has been received.*

- Agard, Dr. A. H.**, Sandusky, Ohio, *Sept. 2, 1867.*
- Agassiz, Alexander**, *April 16, 1866.*
- *Agassiz, Louis**, LL.D., F.R.S., &c., Cambridge, Mass.,
Aug. 25, 1856.
- Anguiano, Senor Angel**, Director del Observatorio Nacional de Mexico, Tacubava, Mexico, *Nov. 2, 1885.*
- Aughey, Samuel**, Prof. of Natural Science Nebraska State University, Lincoln, Neb., *June 5, 1876.*
- Ayres, W. O.**, M.D., San Francisco, Cal., *May 4, 1857.*
- Bache, A. D.**, Supt. U. S. Coast Survey, Washington, D. C.,
June 2, 1856.
- *Baird, Prof. Spencer F.**, A.A.S., S.P.A.S., etc., Assist. Lec. S. I., Washington, D. C., *Aug. 6, 1860.*
- Bandelier, Adolph F., Jr.**, Highland, Ills., *Sept. 3, 1860.*
- Barcena, Sig. Mariano**, City of Mexico, *March 1, 1875.*
- Barnes, G. W.**, San Diego, Cal., *Feb. 21, 1876.*
- *Barrande, Prof. Joachim**, Prague, Bohemia, *Oct. 21, 1861.*
- Barris, Willis H.**, Iowa City, *June 15, 1857.*
- *Beebe, Edward H.**, Galena, Ill., *May 18, 1857.*
- Bent, Silas**, Chicago, Ill., *March 23, 1857.*
- Berchon, Ernest**, D. M. P. Navy of France. Member of the National Anthropological Society of Paris, Paris, France, *June 19, 1865.*
- Behr, Dr. Hermann**, San Francisco, Cal., *Dec. 15, 1856.*
- Bigelow, John M.**, M.D., Detroit, Mich., *Feb. 16, 1863.*
- *Bigsby, Dr. J. J.**, F. G. Soc., London, Eng., *Oct. 5, 1863.*
- *Billings, E.**, F. G. S., Palaeontologist of Geological Survey of Canada, Montreal, Canada, E., *Feb. 8, 1858.*

- *Binney, W. G., Germantown, Pa., *May 4, 1857.*
- Blake, James, M.D., San Francisco, Cal., . . . *March 18, 1861.*
- Blatchford, Dr. Thos. W., Troy, N. Y., . . . *Aug. 24, 1857.*
- Bosquet, Prof. I., Maestricht, Germany, . . . *March 17, 1862.*
- Broadhead, G. C., Columbia, Mo., *Feb. 8, 1858.*
- Brown, B. B., M.D., Sacramento, Cal., . . . *Sept. 8, 1856.*
- Bryan, Lieut. Francis T., Topographical Engrs. U. S. A.,
Dec. 15, 1856.
- Bunsen, Albert, Tobosco, Mexico, *April 20, 1863.*
- Bunsen, Charles, St. Clair Co., Ill., *Sept. 8, 1856.*
- Bunsen, George, St. Clair Co., Ill., *Sept. 8, 1856.*
- Capellini, Prof. Giovanni, University of Bologna, Italy,
Nov. 2, 1863.
- Case, Francis M., Denver, Col., *April 20, 1863.*
- Case, Theo. S., Kansas City, Mo., *March 2, 1885.*
- Castillo, Sig. Antonio del, City of Mexico, . . *March 1, 1875.*
- Clifford, D., *July 4, 1871.*
- Cochrane, J., Havana, Ill., *April 15, 1878.*
- Copes, Dr. J. S., New Orleans, La., *Dec. 15, 1873.*
- Coues, Elliott, M.D., L., Washington, D. C., . *May 2, 1864.*
- Culbertson, Alexander, American Fur Co's. Posts, Missouri River,
June 16, 185.
- Dall, Rev. Chas. H. A., A.M., Calcutta, India, . *Sept. 21, 1857.*
- Danckelman, Dr. A. von, Berlin, *Feb. 16, 1885.*
- Daniels, Prof. Edward, Madison, Wis., . . . *May 18, 1857.*
- *Davidson, Thomas, F.R.S., F.G.S., London, England,
July 26, 1859.
- Dawson, Alex., American Fur Co's. Posts, Missouri River,
June 16, 1856.
- Deming, C. M., American Fur Co's. Posts, Missouri River,
June 16, 1856.
- *Dowler, Bennett, M.D., F.R.S.N. Antig., &c., New Orleans, La.,
July 14, 1856.

- Dudding, Richard, Murphysboro, Ill., *May 4, 1857.*
- *Dunglison, Robley, M.D., S.P.A.S., Philadelphia, Pa.,
Aug. 25, 1856.
- Dyer, F. M., Charleston, Mo., *May 21, 1877.*
- Ehrenbery, Hermann, Arizona, *Sept. 5, 1859,*
- *Emmons, Prof. Ebenezer, Albany, N. Y., . . . *Sept. 21, 1857.*
- Englemann, H., Geologist, Topographical Bureau, Washington, D. C.,
Dec. 5, 1859.
- *Evans, John, M.D., Washington, D. C., . . . *June 16, 1856.*
- *Fendler, Augustus, Allenton, Mo., *Feb. 19, 1867.*
- *Flagg, Willard C., Paddock's Grove, Madison Co., Ill.,
May 18, 1857.
- Fleming, Dr. R. B., Mine de la Motte, Mo., . . . *Feb. 9, 1857.*
- Foster, Mrs. Abner, Beardstown, Ill., *Nov. 18, 1878.*
- Fry, Maj. Cary H., Fort Union, New Mexico, . . . *Oct. 6, 1856.*
- Galpin, C., Fort Pierre, Neb., American Fur Co's. Posts, Missouri
River, *June 16, 1856.*
- Green, Samuel M., Cape Girardeau, Mo., . . . *May 21, 1877.*
- Gregorio, Marchese Antonio de, via Mo lo, Palermo, Sicily,
April 20, 1885.
- *Gill, Prof. Theodore, Washington City, *March 5, 1866.*
- *Geroux, A., American Fur Co's. Posts, Missouri River,
June 16, 1856.
- Goodnow, Isaac T., Supt. Public Instruction, Leavenworth, Kan.,
Aug. 21, 1865.
- *Goodrich, Hiram P., D.D., Carondelet, Mo., . . . *Oct. 6, 1856.*
- *Hagenow, Frederick von, M.D., Greifswald, Prussia, *Feb. 6, 1860.*
- *Haidinger, Hofrath William, S.P.A.S., &c., Director Imp. Geological
Institution of Vienna, Austria, *Aug. 6, 1860.*
- Hall, Prof. James, Albany, N. Y., *Sept. 8, 1866.*
- Hann, Dr. J., Vienna. *May 16, 1881.*
- Harney, Maj. Gen. Wm. S., U. S. A., *Oct. 6, 1856.*
- Hauer, Dr. Franz Ritter von, Vienna, *May 16, 1881.*
- *Hawn, Maj. F., Westan, Mo., *Feb. 8, 1858.*

- ***Hayden, F. V.**, M.D., Philadelphia, Pa., . . . *June 16, 1856.*
Henry, I. C., Fort Union, New Mexico, . . . *Oct. 6, 1856.*
 ***Henry Prof. Joseph**, LL.D., A.A.S., Sec. S. S., Washington, D. C.,
June 2, 1856.
Hinrichs, Gustavus, M.D., Iowa City, Iowa, . . . *Feb. 21, 1876.*
 ***Higginbotham, Rev. John**, Halifax, Nova Scotia, *June 1, 1857.*
Hilgard, Prof. E. W., State Geologist of Mississippi, *Sept. 3, 1860.*
Hilgard, G., Belleville, Ill., *Feb. 5, 1877.*
Hitchcock, C. H., Amherst, Mass., *Oct. 15, 1860.*
Hitchcock, G. N., San Diego, Cal., *Jan. 4, 1876.*
 ***Hochstetter, Dr. Fred.**, Vienna, Austria, *April 18, 1881.*
Hodgkiss, H., Fort Clark, Neb. Ter., American Fur Co's. Posts,
 Missouri River, *June 16, 1856.*
 ***Holden, Edward**, Jackson Co., Ill., *Dec. 15, 1856.*
Holden, Prof. E. S., Lick Observatory, Cal., . . . *April 4, 1881.*
Holmes, Nathaniel, Cambridge, Mass., *June 18, 1883.*
 ***Holtzmann, Prof. Adolph**, Heidelberg, Germany, *Nov. 19, 1860.*
Horine, Solomon, M.D., Memphis, Tenn., *Aug. 6, 1860.*
Hough, Daniel, Indianapolis, Ind., *Feb. 15, 1875.*
Hough, Warwick, Jefferson City, Mo.; St. Louis, since Judge Sup.
 Court, *Dec. 29, 1856.*
Howland, H. B., Buffalo, N. Y., *March 19, 1877.*
Hoy, Philo D., M.D., Racine, Wis., *Sept. 21, 1857.*
Huguet-Latour, Capt. L. A., (now Major), Vice-President of National
 Historical Society, Montreal, Canada, *Sept. 21, 1857.*
Hunt, T. Sterry, Ph.D., A.A.S., Montreal, Canada, E.,
Sept. 21, 1857.
 ***Irving, R. D.**, Prof. University of Wisconsin, . . . *Dec. 17, 1877.*
Irwin, J. T., Ravenna, Mo., *May 6, 1861.*
 ***Jackson, Dr. Charles T.**, Boston, Mass., *Oct. 7, 1861.*
 ***Jackson, John B.**, M.D., A.A.S., Boston, Mass. *Oct. 6, 1856.*
 ***James, Dr. John**, Upper Alton, Ill., *Feb. 8, 1858.*
Johnson, Dr. H., Jacksonville, Ill., *Feb. 17, 1873.*
Johnson, M., M.D., Cochocton, Ohio, *Oct. 15, 1860.*

- Jones, John P., Keytesville, Mo., *March 16, 1874.*
- *Kane, Elisha Kent, Philadelphia, Pa., *July 14, 1856.*
- King, Henry, M.D., Georgetown, D. C., *Sept. 8, 1856.*
- Kipp, A., American Fur Co's. Posts, Missouri River, *June 16, 1856.*
- Koelle, John, Berkner Station, Ill., *Feb. 5, 1877.*
- *Koninck, L. de, Liège, Belgium, *March 5, 1877.*
- Lane, Judge E., Chicago, Ill., *March 23, 1857.*
- *Lapham, Increase A., Milwaukee, Wis., *Feb. 9, 1867.*
- Leconte, John L., M.D., Philadelphia, Pa., *June 2, 1856.*
- Lee, W. J., Iron Ridge, Mo., *Feb. 3, 1873.*
- Leidy, Joseph, M.D., A.A.S., Philadelphia, Pa., *July 14, 1856.*
- *Lindheimer, Ferdinand, New Braunfels, Texas, *Sept. 8, 1856.*
- *Locke, Prof. John, Jr., University of Mo., Columbia, Mo.,
May 4, 1857.
- *Logan, Sir William E., F.G.S., F.R.S., A.A.S., Montreal, Canada,
E., *Sept. 21, 1857.*
- *Lyon, Sidney S., Jeffersonville, Ind., *Jan. 2, 1860.*
- Lyon, T. Gallatin, M.D., Jerseyville, Ill., *June 17, 1867.*
- Mason, Otis T., Georgetown College, D. C., *1881.*
- Marcou, Prof. Jules, Geologist, Boston, Mass., *Sept. 3, 1860.*
- *Marcy, Capt. R. P., U. S. A., *Feb. 9, 1857.*
- *Marsh, Hon. Geo. P., L.S.D., A.A.S., Burlington, Vt.,
Feb. 9, 1857.
- Mayer, Martin, M.D., LL.D., Leavenworth, Kan., *Feb. 20, 1865.*
- McAdams, Wm., Jr., Jerseyville, Ill., *Feb. 21, 1859.*
- McClellan, Capt. Geo. B., (since Maj. Genl.), Chicago, Ill.,
March 23, 1857.
- McGregor, Dr. A. L., Chamois, Mo., *June 29, 1857.*
- *McMasters, Rev. S. Y., D.D., LL.D., Alton, Ill., *Feb. 8, 1858.*
- *Meek, F. B., Albany, N. Y., *Aug. 11, 1856.*
- *Meline, Major James F., U. S. A., *April 3, 1865.*
- *Morerod, E. R., M.D., Silver Top, Tenn., *Dec. 17, 1860.*
- Mosblech, Prof. P. W., Ph.D., Bethany College, Va., *Dec. 19, 1859.*
- Müller, Baron Ferdinand von, *June 18, 1883.*

- Newberry, Dr. J. S., Columbia College, N. Y., *Oct. 7, 1861.*
- Norris, Dr. Benj., Pittsfield, Ill., *Feb. 9, 1857.*
- Norwood, Chas. J., Columbia, Mo., *May 17, 1875.*
- Norwood, J. G., M.D., Columbia, Mo., *May 19, 1856.*
- *Owen, Prof. Richard, New Harmony, Ind., *March 17, 1862.*
- Parker, J. C., San Diego, Cal., *Jan. 3, 1876.*
- *Parry, C. C., M.D., Davenport, Ia., *March 18, 1861.*
- Patrick, J. R., Belleville, Ill., *March 6, 1876.*
- *Pavy, Dr. Octave, *May 17, 1880.*
- Price, R. B., Columbia, Mo., *Oct. 15, 1860.*
- Peter, Prof. Robert, M.D., Lexington, Ky., *March 17, 1862.*
- Phillips, Henry, Jr., 209 S. 5th St., Philadelphia, *April 4, 1881.*
- Pope, Capt. John, (since Maj. Gen.), U. S. A., St. Louis, Mo.,
Dec. 15, 1856.
- Pratt, George C., *Nov. 21, 1881.*
- *Pratten, Henry, Springfield, Ill., *Aug. 11, 1856.*
- Putnam, F. W., Director Peabody Museum, Salem, Mass.,
March 19, 1877.
- *Rath, G. vom, Bonn, *Dec. 1, 1884.*
- Rau, Charles, Smithsonian Institution, Washington, D. C.,
Dec. 15, 1879.
- Rauch, John H., M.D., Burlington, Iowa, *Oct. 6, 1856.*
- *Reuss, Adolphus, M.D., St. Clair Co., Ill., *Sept. 8, 1856.*
- *Riddell, Prof. I. L., M.D., New Orleans, *July 14, 1856.*
- Riddell, Prof. W. P., M.D., Austin, Texas, *March 21, 1859.*
- Riley, C. V., Washington, D. C., *Dec. 15, 1879.*
- *Robb, James, Chicago, Ill., *Dec. 7, 1863.*
- *Robin, Charles, M.D., Paris, France, *Jan. 7, 1861.*
- Russell, Prof. John, Bluffdale, Ill., *Feb. 9, 1857.*
- *Ryland, Kirtley, M.D., St. Clair Co., Ill., *Sept. 8, 1856.*
- *Sartwell, Henry P., Penn Yan, N. Y., *Oct. 15, 1866.*
- Sawyer, Amos, Hillsboro, Ill., *May 4, 1874.*
- *Schlagintweit, Robert von, Giessen, Germany, *March 15, 1869.*

- *Schoendich, Dr. Henry, St. Charles, Mo., . . . *May 4, 1857.*
- *Schultz, C. H., M.D., Deidesheim, Bavaria, . . . *Aug. 6, 1869.*
- *Seeman, Berthold, Ph.D., London, England, . . . *Aug. 24, 1857.*
- *Seyffarth, Gustavus, Yorkville, N. Y., . . . *March 5, 1877.*
- Sharswood, Wm., A.M., Ph.D., Philadelphia, Pa., . . . *Dec. 19, 1859.*
- Sheldon, Prof. D. S., Iowa College, Davenport, Ia., . . . *June 15, 1857.*
- Shephard, Prof. Chas. U., M.D., A.A.S., New Haven, Conn.,
Aug. 6, 1860.
- Shepherd, John, Macon, Mo., *Jan. 6, 1879.*
- *Shimer, Henry, Mount Carroll, Ill., *May 2, 1864.*
- *Shumard, Dr. George D., Fort Smith, Ark., . . . *Jan. 26, 1857.*
- Sloan, Wm. I., M.D. Sue. U. S. A., Santa Fe, New Mexico,
April 2, 1860.
- Snyder, John F., Boliver, Mo., *Sept. 22, 1856.*
- Snyder, Wm., Belleville, Ill., *Sept. 22, 1856.*
- Spencer, Prof. J. W., Columbia, Mo., *Jan. 21, 1884.*
- *Squier, E. George, A.M., New York, N. Y., . . . *Oct. 15, 1860.*
- Stanton, F. J., Denver, Col., *June 1, 1874.*
- Steele, Dr. Geo. G., Austin, Texas, *Dec. 15, 1856.*
- Stone, George C., New York, *Feb. 20, 1882.*
- *Suess, Prof. Edward, Director of Imperial Museum of Mineralogy,
Vienna, *Feb. 8, 1858.*
- Swallow, Prof. G. C., Columbia, Mo., *June 16, 1856.*
- Teft, J. E., Springfield, Mo., *June 19, 1874.*
- Trecul, Auguste, Paris, France, *July 28, 1856.*
- Vasey, George, M. D., Ringwood, Ill., *Jan. 7, 1861.*
- *Vaughan, Col. A. J., Indian Agent, *Oct. 6, 1856.*
- Veatch, Charles, Keytesville, *Sept. 21, 1868.*
- Wadsworth, Dr. J. L. R., Collinsville, Ill., . . . *Dec. 20, 1880.*
- Warriner, Prof. H. A., Antioch College, Ohio, . . . *Jan. 20, 1862.*
- *Warren, Lieut. G. K., U. S. A., Washington, D. C., *Nov. 17, 1856.*
- Weber, I., Belleville, Ill., *Feb. 5, 1877.*
- *Weiss, Dr. Adolph, Vienna, Austria, *Jan. 21, 1861.*

Wells, Lemuel T., Cincinnati, Ohio, . . .	<i>Oct. 15, 1860.</i>
Wheeler, Dr. F. W., Perryville, Mo., . . .	<i>Dec. 29, 1866.</i>
Wheelock, L. P., Sandusky, Ohio, . . .	<i>Sept. 2, 1867.</i>
White, C. A., Washington, D. C., . . .	<i>Jan. 2, 1860.</i>
White, Rev. Dr. Geo., Florence, Ala., . . .	<i>Sept. 21, 1857.</i>
*Whittelsey, Col. Charles, Cleveland, Ohio, . . .	<i>Dec. 29, 1856.</i>
Williams, Dr., Meramec Iron Works, Crawford Co., Mo.,	<i>Aug. 24, 1857.</i>
Wilson, George, Lexington, Mo., . . .	<i>March 17, 1884.</i>
Winchell, Prof. A., Ann Arbor, Mich., . . .	<i>Oct. 18, 1860.</i>
Woodruf, Wm. T., Marshall, Mich., . . .	<i>Jan. 7, 1861.</i>
*Worthen, Amos H., State Geologist, Springfield, Ill.,	<i>Dec. 5, 1859.</i>
Yandell, Prof. L. P., Louisville, Ky., . . .	<i>Oct. 6, 1856.</i>
Yoakum, Dr. F. L., Larissa, Cherokee Co., Texas,	<i>Feb. 21, 1870.</i>

EXCHANGES.

AMERICA (NORTH).

United States.

Albany, N. Y.

New York State Library.

New York State Museum of Natural History.

Baltimore, Md.

American Chemical Journal.

Biological Laboratory.

Johns Hopkins University.

Maryland Academy of Sciences.

Boston, Mass.

American Academy of Arts and Sciences.

Massachusetts Horticultural Society.

Society of Natural History.

Brookville, Ind.

Brookville Society of Natural History.

Buffalo, N. Y.

Buffalo Society of Natural Sciences.

Cambridge, Mass.

Cambridge Entomological Club.

Harvard College Observatory.

Museum of Comparative Zoology.

Peabody Museum of American Archæology and
Ethnology.

Champaign, Ills.

State Laboratory of Natural History.

Chapel Hill, N. C.

Elisha Mitchell Scientific Society.

Charleston, S. C.

Elliot Society of Science and Art.

Chicago, Ills.

Chicago Academy of Sciences.

American Antiquarian.

Historical Society.

Public Library.

Cincinnati, O.

Ohio Mechanics' Institute.

Society of Natural History.

Cleveland, O.

Academy of Science.

Davenport, Ia.

Davenport Academy of Natural Sciences.

Denver, Colo.

Colorado Scientific Society.

Des Moines, Ia.

Des Moines Academy of Science.

Detroit, Mich.

American Meteorological Journal.

Golden, Colo.

State School of Mines.

Granville, O.

Denison Scientific Association.

Hamilton, O.

The Hamilton Association.

Houston, Tex.

State Geological and Scientific Association.

Ithaca, N. Y.

Cornell University.

Lincoln, Neb.

Nebraska University.

Madison, Wis.

Academy of Science, Arts, and Letters.

Natural History Society of Wisconsin.

State Historical Society.

Washburn Observatory.

Meriden, Conn.

Scientific Association.

Milwaukee, Wis.

Naturhistorischer Verein (*Society of Natural History*).

Public Museum of Milwaukee.

Minneapolis, Minn.

Academy of Natural Science.

New Haven, Conn.

Astronomical Observatory of Yale University.

Connecticut Academy of Science.

American Journal of Science.

New Orleans, La.

Academy of Science.

New York, N. Y.

Academy of Science.

American Geographical Society.

Chemical Society.

New York City, N. Y. (Continued).

Microscopical Society.
Association of Engineering Societies.
Journal of Otology.
Astor Library.
American Entomologist.
Linnæan Society of New York.
Torry Botanical Club.
American Museum of Natural History.

Northfield, Minn.

Carleton College Observatory.

Peoria, Ill.

Scientific Association.

Philadelphia, Pa.

Academy of Natural Science.
American Philosophical Society.
American Entomological Society.
Journal of Comparative Medicine and Surgery.
Numismatic and Antiquarian Society.
Zoological Society.
Library Company.
Pharmaceutical Association.
Polyclinic.
Pennsylvania Woman's Medical College.
Wagner Free Institute of Science.
Journal of Pharmacy.

Portland, Me.

Society of Natural History.

Poughkeepsie, N. Y.

Vassar Brothers Institute.

Princeton, N. J.

Museum of Geology and Archæology.

Sacramento, Cal.

State Mining Bureau.

Salem, Mass.

Essex Institute.

Peabody Academy of Science.

Santa Barbara, Cal.

Society of Natural History.

San Francisco, Cal.

California Academy of Science.

Technical Society of the Pacific Coast.

Mt. Hamilton, Cal.

Lick Observatory.

Sedalia, Mo.

Sedalia Natural History Society.

Springfield, Ills.

Geological Survey of Illinois.

St. Louis, Mo.

Journal of Ophthalmology.

St. Paul, Minn.

Geological and Natural History Survey of Minnesota.

Topeka, Kas.

Kansas Academy of Science.

Trenton, N. J.

Trenton Natural History Society.

Urbana, O.

Central Ohio Scientific Association.

Washington, D. C.

American Academy of Medicine.

United States War Department. Engineer Department, U. S. A.

Chief Signal Office.

Geological Survey.

United States Fish Commission.

Department of Agriculture.

Bureau of Education.

Smithsonian Institution.

United States Naval and Astronomical Observatory.

Bureau of Ethnology.

Bureau of Entomology.

Philosophical Society.

Worcester, Mass.

American Antiquarian Society.

Worcester Society of Antiquity.

British America.

CANADA.

Montreal (*Quebec*).

Natural History Society.

Royal Society of Canada.

The Canadian Record of Science.

Ottawa (*Ontario*).

Institut Canadien Français (*French Canadian Institute*).

Quebec (*Quebec*).

Entomological Society of Canada.
Literary and Historical Society of Quebec.
Université Laval (*Laval University*).

Toronto (*Ontario*).

Canadian Institute.

MANITOBA.

Winnipeg.

Manitoba Historical and Scientific Society.

NOVA SCOTIA.

Halifax.

Nova Scotia Institute of Natural Sciences.

Central America.

COSTA RICA.

San José.

Central Office of Statistics and Meteorology.
Museo Nacional (*National Museum*).

GUATEMALA.

Guatemala.

Secretaria de Fomento (*Department of Interior*).

MEXICO.

Mexico.

El Museo Nacional (*National Museum*).
Ministerio de Fomento, Colonizacion, Industria y
Comercio (*Department of Interior, Coloni-
zation, Industry, and Commerce*).

Mexico (Continued).

Observatorio Astronomico Nacional (*National Astronomical Observatory*).

Sociedad "Andres del Rio" (*Society "Andres del Rio"*).

Sociedad Mexicana de Geografia y Estadistica (*Mexican Geographical and Statistical Society*).

Sociedad Mexicana de Historia Natural (*Mexican Natural History Society*).

West Indies.

JAMAICA.

Kingston.

Public Gardens.

AMERICA (SOUTH).

ARGENTINE REPUBLIC.

Buenos Aires.

Museo Publico de Buenos Aires (*Public Museum Buenos Aires*).

Sociedad Cientifica Argentina (*Argentine Scientific Society*).

Statistical Bureau.

Cordoba.

Academia Nacional de Ciencias Exactes (*National Academy of Exact Sciences*).

Academia Nacional de Ciencias en Cordoba (*National Academy of Sciences of Cordoba*).

BRAZIL.

Rio Janeiro.

Instituto Historico, Geografico y Ethnografico (*Historical, Geographical, and Ethnographical Institute*).

Nautical Observatory.

CHILE.

Santiago.

Deutscher Wissenschaftliche Verein (*German Scientific Society*).

ASIA.

JAPAN.

Tokio.

Tokio Daigaku (*Imperial University*). (Formerly Kaisei Gakko).

JAVA.

Batavia.

Magnetic and Meteorological Observatory.

AUSTRALIA.

NEW SOUTH WALES.

Sydney.

Royal Society of New South Wales.

QUEENSLAND.

Brisbane.

Royal Geographical Society of Australasia (Queensland Branch).

SOUTH AUSTRALIA.

Adelaide.

Royal Society of South Australia.

VICTORIA.

Melbourne.

Royal Society of Victoria.

EUROPE.

AUSTRIA-HUNGARY.

Brünn.

K. K. Mährisch-Schlesische Gesellschaft für Ackerbau, Natur-und Landeskunde (*Imperial Royal Maravian-Silesian Society of Agriculture, Natural History, and Geography*).
Naturforschender Verein (*Naturalists' Society*).

Budapest (*Hungary*).

Ethnologische Mitteilungen aus Ungarn (*Hungarian Contributions to Ethnology*).

Geologische Gesellschaft für Ungarn (*Geological Society of Hungary*).

K. Magyar Természettudományi Társulat (*Royal Hungarian Society of Natural Sciences*).

K. Magyar Tudományos Egyetem (*Royal Hungarian University*).

K. Magyar Tudományos Akademia (*Hungarian Academy*).

Gratz (*Styria*).

Industrie und Gewerbe Verein (*Industrial and Polytechnical Society*).

Hermannstadt (*Transylvania*).

Siebenbürgischer Verein für Naturwissenschaften
(*Transylvania Society of Natural Sciences*).

Laibach (*Illyria*).

Landes-Museum (*National Museum*).

Linz (*Austria*).

Museum Francisco-Carolinum.

Prag (*Bohemia*).

K. böhmische Gesellschaft der Wissenschaften
(*Royal Bohemian Society of Sciences*).

Reichenberg (*Bohemia*).

Verein für Naturfreunde (*Society of Naturalists*).

Trieste (*Illyria*).

Società Adriatica di Scienze Naturali (*Adriatic Society of Natural Sciences*).

Wien (*Austria*).

Anthropologische Gesellschaft (*Athropological Society*).

Kaiserliche Akademie der Wissenschaften—Universitäts-Platz 2 (*Imperial Academy of Sciences*)

K. K. Central-Anstalt für Meteorologie und Erdmagnetismus (*Imperial Royal Central Institutet for Meteorological and Terrestrial Magnetism*).

K. K. Geographische Gesellschaft (*Imperial Royal Geographical Society*.)

Wien (*Austria*) Continued.

K. K. Geologische Reichsanstalt (*Imperial Royal Geological Establishment*).

K. K. Mineralogisches Hof-Cabinet (*Imperial Royal Mineralogical Museum*).

K. K. Naturhistorisches Hof-Museum (*Imperial Royal Natural History Museum*).

K. K. Zoologisch-Botanische Gesellschaft (*Imperial Royal Zoological Botanical Society*).

Oesterreichischer Touristen Club (*Austrian Tourists' Club*).

Verein zur Verbreitung naturwissenschaftlicher Kenntnisse (*Society for the Diffusion of the knowledge of Natural Science*).

BELGIUM.

Anvers (*Antwerp*).

Académie d'Archéologie de Belgique (*Academy of Archæology of Belgium*).

Bruxelles (*Brussels*).

Académie Royale des Sciences, des Lettres et des Beaux Arts de Belgique (*Royal Academy of Sciences, Letters, and Fine Arts, of Belgium*).

Observatoire Royal (*Royal Observatory*).

Société Belge de Microscopie (*Belgian Microscopical Society*).

Société Entomologique de Belgique (*Entomological Society of Belgium*).

Société Malacologique de Belgique (*Malacological Society of Belgium*).

Société Royale de Botanique de Belgique (*Botanical Society of Belgium*).

Liège.

Société Géologique de Belgique (*Geological Society of Belgium*).

Louvain.

Université Catholique (*Catholic University*).

DENMARK.

Kjöbenhavn (*Copenhagen*.)

Kongelige Danske Videnskabernes Selskab (*Royal Danish Society of Sciences*).

FRANCE.

Amiens.

Société Linnéenne du Nord de la France (*Linnean Society of the North of France*).

Angers.

Société d'Etudes Scientifiques (*Society of Scientific Studies*).

Auxerre.

Société des Sciences Historiques et Naturelles de l'Yonne (*Society of Historical and Natural Sciences, of Yonne*).

Bordeaux.

L'Académie National des Sciences, Belles-Lettres et Arts de Bordeaux.

Société Linnéenne de Bordeaux (*Linnean Society of Bordeaux*).

Société des Sciences Physiques et Naturelles (*Society of Physical and Natural Sciences*).

Caen.

Académie Nationale des Sciences, Arts, et Belles Lettres (*National Academy of Sciences, Arts and Belles-Lettres*).

Société Linnéenne de Normandie (*Linnean Society of Normandy*).

Cherbourg (Manche).

Société Nationale des Sciences Naturelles de Cherbourg (*National Society of Natural Sciences of Cherbourg*).

Dijon.

Académie des Sciences, Arts, et Belles-Lettres de Dijon (*Academy of Sciences, Arts, and Belles-Lettres of Dijon*).

Lyon.

Académie des Sciences, Belles-Lettres, et Arts de Lyon (*Lyons Academy of Sciences, Belles-Lettres, and Arts*).

Musée Guimet (*Guimet Museum*).

Montpellier.

Académie des Sciences et Lettres de Montpellier (*Academy of Sciences and Letters of Montpellier*).

Nancy.

Société des Sciences de Nancy (*Society of Sciences, of Nancy*).

Paris.

Ecole Polytechnique (*Polytechnic School*).

Journal de Micographie.

Revue Archéologique (*Archæological Review*).

Paris (Continued).

Société d'Anthropologie (15 rue de l'Ecole de Médecine), (*Anthropological Society*).

Société d'Ethnographie (47 Avenue Duquesne), (*Ethnographical Society*).

Société Zoologique de France (*Zoological Society of France*).

Pau.

Société de Sciences, Lettres, et Arts (*Society of Sciences, Letters, and Arts*).

GERMANY.

Altenberg.

Naturforschende Gesellschaft des Osterlandes (*Natural History Society of Osterland*).

Augsberg (*Bavaria*).

Naturhistorischer Verein (*Natural History Society*).

Berlin (*Prussia*).

Botanischer Verein der Provinz Brandenburg (*Botanical Society of the Province of Brandenburg*).

Deutsche Chemische Gesellschaft (*German Chemical Society*).

Gesellschaft Naturforschender Freunde (*Society of Friends of Natural History*).

Königliche (Preussische) Akademie der Wissenschaften (*Royal Academy of Science*).

Verein zur Beförderung des Gartenbaues in den Königlich Preussischen Staaten (*Society for the Promotion of Horticulture in the Royal Prussian States*).

Bistritz.

Siebenbürgen Gewerbe Schule.

Blankenburg (*Prussia*).

Gräfliche Oeffentliche Bibliothek, Wernigeroda,
(successor to Naturwissenschaftlicher Verein
des Harzes). (*Public Library, Wernig-
eroda*).

Bonn.

Naturhistorischer Verein der Preussischen Rhein-
lande und Westfalens (*Natural History So-
ciety of the Rhenish Provinces and West-
phalia*).

Braunschweig (*Brunswick*).

Verein für Naturwissenschaften (*Society of Natural
Sciences*).

Breman (*Germany*).

Naturwissenschaftlicher Verein (*Society of Natural
Sciences*).

Cassel (*See Kassel*).

Chemnitz (*Saxony*).

Naturwissenschaftliche Gesellschaft (*Society of
Natural Sciences*).

Danzig (*Prussia*).

Naturforschende Gesellschaft (*Society of Natural
Sciences*).

Darmstadt (*Hesse*).

Verein für Erdkunde und Verwandte Wissenschaften
(*Society of Geographical and Kindred Sciences*).

Dresden (Saxony).

Afrikanische Gesellschaft (*African Society*).

Naturwissenschaftliche Gesellschaft "Isis" ("*Isis*"
Society of Natural Sciences).

Verein für Erdkunde (*Geographical Society*).

Dürkheim (Bavaria.).

"Pollichia" Naturwissenschaftlicher Verein der
Rheinpfalz ("*Pollichia*" *Society of Natural*
Science of the Rhenish Palatinate).

Emden (Prussia).

Naturforschende Gesellschaft (*Naturalists' Society*).

Erfurt (Prussia).

Akademie gemeinnütziger Wissenschaften (*Academy*
of Useful Sciences).

Frankfurt-am-Main.

Ärtzlicher Verein.

Senckenbergische Naturforschende Gesellschaft
(*Senckenberg Naturalists' Society*). (De-
posits its books with the Seckenbergische
Bibliothek).

Verein für Geographie und Statistik (*Society of*
Geography and Statistics). (Care of Stadt-
Bibliothek).

"Zoologischer Garten" (*Redaktion*), ("*Zoological*
Gardens."

Königlich-Sächsische Berg-Akademie (*Royal Saxon*
Mining Academy.)

Freiburg-im-Breisgau (Baden).

Naturforschende Gesellschaft (*Naturalists' Society*).

Giessen (*Hesse.*)

Oberhessische Gellschaft für Natur-und Heilkunde
(*Upper Hesse Society of Natural and Medical Sciences*).

Oberhessische Gesellschaft für Naturkunde.

Görlitz (*Prussia*).

Naturforschende Gesellschaft (*Naturalists' Society*).

Göttingen (*Prussia*).

Königliche Societät der Wissenschaften (*Royal Society of Sciences*).

Greifswald (*Prussia*).

Geographische Gesellschaft (*Geographical Society*).

Güstrow (*Mecklenburg*).

Verein der Freunde der Naturgeschichte in Meeklenburg.

Halberstadt (*Prussia*).

Deutsche Ornithologische Gesellschaft.

Halle-an-der-Saale (*Prussia*).

Kaiserliche Leopoldini Carolina Akademie der
Deutschen Naturforscher (*Imperial Leopold-Carolus Academy of German Naturalists*).

Naturforschende Gesellschaft (*Naturalists' Society*).

Redaktion "Zeitschrift für die gesammten Naturwissenschaften" (*Journal of Natural Sciences*). (Formerly in Berlin).

Verein für Erdkunde (*Geographical Society*).

Hamburg (*Germany*).

Naturwissenschaftlicher Verein Hamburg-Altona
(*Hamburg-Altona Society of Natural Sciences*.)

Hanau (*Hesse*).

Wetterauische Gesellschaft für die gesammte Naturkunde (*Wetterau Association of Natural Sciences*).

Hannover (*Prussia*).

Gesellschaft für Mikroskopie (*Microscopical Society*).

Heidelberg (*Baden*).

Naturhistorisch-Medicinischer Verein (*Society of Natural and Medical Sciences*).

Karlsruhe (*Baden*).

Naturwissenschaftlicher Verein (*Society of Natural Sciences*).

Kassel (*Prussia*).

Verein für Naturkunde (*Natural History Society*).

Kiel (*Prussia*).

Königliche Sternwarte (*Royal Observatory*).

Naturwissenschaftlicher Verein für Schleswig-Holstein (*Sleswick-Holstein Society of Natural Sciences*).

Königsberg-in-Preussen (*Prussia*).

Königliche (Ostpreussische) Physikalisch-Oekonomische Gesellschaft (*Royal Physico-Economical Society*).

Landshut (*Bavaria*).

Botanischer Verein (*Botanical Society*).

Leipzig (*Saxony*).

Dr. Felix Flügel (39 Sidonien Strasse) (Agent of the Smithsonian Institution).

Leipzig (Saxony) Continued.

Königlich-Sächsische Gesellschaft der Wissenschaften (*Royal Saxon Society of Sciences*).
Naturforschende Gesellschaft (*Naturalists' Society*).
Verein für Erdkunde (*Geographical Society*).
Zoologischer Anzeiger (*Zoological Journal*).

Luneburg (Prussia).

Naturwissenschaftlicher Verein (*Society of Natural Sciences*).

Luxembourg.

Institute Luxembourgeois, Section des Sciences Naturelles et Mathématiques (*Luxembourg Institute, Division of Natural Sciences and Mathematics*).

Mannheim (Prussia.)

Verein für Naturkunde (*Society of Natural Sciences*).

Marburg (Prussia).

Gesellschaft zur Beförderung der gesammten Naturwissenschaften (*Society for the Advancement of Natural Sciences*).

Metz (Lorraine).

Société d'Histoire Naturelle de Metz (*Natural History Society of Metz*).
Verein für Erdkunde (*Geographical Society*).

München (Bavaria).

Königlich-Baierische Akademie der Wissenschaften (*Royal Bavarian Academy of Sciences*).

Münster (Prussia).

Provinzial-Verein für Wissenschaft und Kunst (*Provincial Society of Science and Art*).

Nürnberg (*Bavaria*).

Naturhistorische Gesellschaft (*Natural History Society*).

Offenbach (*Baden*).

Verein für Naturkunde (*Society of Natural Sciences*).

Passau (*Bavaria*).

Naturhistorischer Verein (*Natural History Society*).

Posen (*Prussia*).

Historische Gesellschaft für die Provinz Posen
(*Historical Society of the Province of Posen*.)

Presburg.

Verein für Naturkunde.

Regensburg (*Bavaria*).

Historischer Verein für die Oberpfalz (*Historical Society of the Upper Platinat*).

Königliche Baierische Botanische Gesellschaft
(*Royal Bavarian Botanical Society*).

Zoologisch-Mineralogischer Verein (*Zoological Mineralogical Association*).

Salzburg.

Vaterländisches Museum Carolino-Augusteum
(*National Museum*).

Stettin (*Prussia*).

Entomologischer Verein (*Entomological Society*)

Stuttgart (*Württemberg*).

Verein für vaterländische Naturkunde in Württemberg
(*Society of Natural History of Württemberg*).

Wiesbaden (*Prussia*).

Verein für Naturkunde (*Society of Natural Sciences*).

Würzburg (*Bavaria*).

Physikalisch-Medizinische Gesellschaft (*Physico-Medical Society*).

Great Britain and Ireland.

ENGLAND.

Halifax.

Yorkshire Geological and Polytechnical Society
(formerly in Leeds).

Leeds.

(Quarterly) Journal of Conchology.
Leeds Philosophical and Literary Society.

London.

British Museum (Great Russell Street, Bloomsbury,
W. C.)

Entomological Society (11 Chandos Street, Caven-
dish Square, W.)

"Nature" (care of Macmillan & Co., Bedford
Street, Strand, W. C.)

Royal Geographical Society of London (1 Savile
Row, W.)

Royal Microscopical Society (King's College,
Strand, W. C.)

Royal Society of London (Burlington House, W.)

Manchester.

Literary and Philosophical Society of Manchester
(36 George Street).

Manchester Scientific Students' Association (97
Bridge Street).

Newcastle-upon-Tyne.

Natural History Society of Northumberland, Dur-
ham, and Newcastle-upon-Tyne (*Museum,*
Newcastle.)

IRELAND.

Belfast.

Belfast Naturalists' Field Club.

Dublin.

Royal Dublin Society (Kildare Street).

Royal Geological Society of Ireland.

Royal Irish Academy.

SCOTLAND.

Edinburgh.

Edinburgh Geological Society.

Royal Physical Society.

Royal Scottish Society of Arts.

Royal Society of Edinburgh.

Glasgow.

Geological Society (76 Henderson Street).

Natural History Society of Glasgow (207 Bath
Street).

Philosophical Society (207 Bath Street).

ITALY.

Bologna.

Accademia delle Scienze dell'Istituto de Bologna
(*Academy of Sciences of the Institute of
Bologna*).

Catania.

Accademia Gioenia de Scienze Naturali (*Gioenia
Academy of Natural Sciences*).

Firenze (*Florence*).

Biblioteca Nazionale (*National Library*).

Istituto di Studi Superiori in Firenze (*Florence In-
stitute of Higher Studies*).

Milano.

Fondazione Scientifica Cagnola (*Scientific Institu-
tion*). (Branch of the R. Istituto Lombardo).

R. Istituto Lombardo di Scienze e Lettere (*Royal
Institute of Sciences and Letters of Lom-
bardy*).

Società Italiana di Scienze Naturali (*Italian So-
ciety of Natural Sciences*).

Modena.

R. Accademie di Scienze, Lettere ed Arti (*Royal
Academy of Sciences, Letters, and Arts*).

Napoli (*Naples*.)

R. Accademia delle Scienze e Belle Lettere (*Royal
Academy of Sciences and Belles Lettres*).

Padova (*Padua*).

R. Accademia di Scienze, Lettere, ed Arti di Padova
(*Royal Academy of Sciences, Letters, and
Arts, of Padua*).

Palermo.

Società d'Acclimazione e di Agricoltura in Sicilia
(*Society of Acclimation and Agriculture in Sicily*).

Hortus Botanicus Panormitanus (*Botanical Garden of Palermo*).

Pisca.

Società Toscana di Scienze Naturali (*Tuscan Society of Natural Sciences*).

Roma.

Biblioteca Nazionale Vittorio Emanuele (*Victor Emanuel National Library*).

R. Comitato Geologico d'Italia (*Royal Geological Committee of Italy*).

Società Italiana della Scienze (*Italian Society of Sciences*).

Torino (Turin).

R. Museo Zoologico di Torino (*Royal Zoological Museum of Turin*).

Venezia (Venice.)

R. Istituto Veneto di Scienze, Lettere ed Arti
(*Venetian Institute of Sciences, Letters, and Arts*).

NETHERLANDS.

Amsterdam.

Koninklijke Akademie van Wetenschappen (*Royal Academy of Sciences*).

Koninklijke Zoologische Genootschap "Natura Artis Magistra" (*Royal Zoological Society*).

Haarlem (*Noord Holland*).

Fondation de P. Teyler van der Hulst (*Teyler Institution*).

Hollandsche Maatschappij van Wetenschappen
(*Holland Society of Sciences*).

(Ministère de l'Interieur-in'S Gravenhage).

Leiden (*Zuid Holland*).

Nederlandsche Dierkundige Vereeniging (*Netherlands Zoological Society*).

Rijks Observatorium (*Royal Observatory*).

Middelburg (*Zealand*).

Zeeuwsch Genootschap van Wetenschappen (*Zealand Society of Sciences*).

Rotterdam (*Zuid Holland*).

Bataantsche Genootschap van Proefonder vindelijke
Wijsbegeerte (*Batavian Society of Experimental Philosophy*).

Utrecht.

Koninklijk Nederlandsche Meteorologisch Institute
(*Royal Dutch Meteorological Institute*).

Provinciaal Utrechtsch Genootschap van Kunstan
en Wetenschappen (*Provincial Society of Arts and Sciences*).

Zwolle (*Overijssel*).

Overijsselsche Vereeniging tot Ontwikkeling van
Provinciaale Welvaart (*Overijssel Society for the Promotion of Provencial Welfare*).

NORWAY.

Christiania.

Det Kongelige Norske Frederiks Universitet (*Royal Norwegian Frederick University*).

PORTUGAL.

Lisböa (*Lisbon*).

Academia Real des Ciencias (*Royal Academy of Sciences*).

Sociedade de Geografia (*Geographical Society*).

RUSSIA.

Derpt (*Dorpat*).

Derptskoie Obshchestyo Iestesto-Ispytalei (*Dorpat Society of Naturalists*).

Helsingfors.

Sällskapet pro Fauna et Flora Fennica (*Society for the Fauna and Flora of Finland*).

Kazan.

Imper. Kazanskii Universitet (*Imperial University of Kasan*).

Moskva (*Moscow*).

Imper. Moskovskoie Obshchestyo-Ispytatetei (*Imperial Moscow Society of Naturalists*).

Meteorological Observatory of the Agricultural Academy.

Riga.

Obshchestyo Iestestyo-Ispytatelei (Naturforscher-verein). (*Society of Naturalists*).

Sankt-Petersburg (*St. Petersburg*).

Imper. Bibliothek (*Royal Library*).

Imper. Akademia Nauk (*Imperial Academy of Science*).

Imper. Russkoie Geograficheskoe Obshchestyo (*Imperial Russian Geographical Society*).

Sankt-Petersburg (*St. Petersburg*) Continued.

Imper. Sankt-Peterburgskii Botanicheskii Sad (*Imperial Botanical Garden of St. Petersburg*).
(Packages sent through Wm. Mintor, Wandrahm Brucke 6, Hamburg, Germany).

Imper. Sankt-Peterburgskoie Mineralogicheskoe Obshchestyo (*Imperial Mineralogical Society of St. Petersburg*).

Tiflis.

Magnitnaia i Meteorologicheskaja Observatoria (*Magnetic and Meteorological Observatory*).
(Physikalisches Observatorium).

SPAIN.

Barcelona.

Academia de Ciencias, Artes, y Oficios para la Mujer (*Academy of Sciences, Arts, and Female Industries*).

Cordova.

Academia Nacional de Ciencias Exactas (*National Academy of Exact Sciences*).

Madrid.

Observatorio de Madrid (*Madrid Observatory*).
Real Academia de Ciencias de Madrid (*Royal Academy of Sciences, of Madrid*).

SWEDEN.

Lund.

Kongliga Universitet (*Royal University*).

Stockholm.

Entomologiske Tidsskrift (*Entomological Journal*).
Kongligi Svenska Vetenskaps Akademien (*Royal Swedish Academy of Sciences*).

Upsala.

Kongliga Vetenskaps Societaten (*Royal Society of Sciences*).

Vesteras.

Riksbibliotheket (*State Library*).

SWITZERLAND.

Basel.

Naturforschende Gesellschaft (*Naturalists' Society*).

Bern.

Allgemeine Schweizerische Gesellschaft für die
Gesamten Naturwissenschaften (*Swiss Society of Natural Sciences in General*).

Naturforschende Gesellschaft (*Naturalists' Society*).

Chur.

Naturforschende Gesellschaft Graubündens (*Society of Natural Sciences of Graubünden*).

Frauenfeld.

Thurgauische Naturforschende Gesellschaft (*Thurgau Naturalists' Society*).

Fribourg.

Société Fribourgeoise des Naturalistes (*Fribourg Society of Naturalists*).

Genève.

Institut National Gènevois (*National Institute of Geneva*).

Lausanne.

Société Vaudoise des Sciences Naturelles (*Society of Natural Sciences*).

Neufchatel.

Société des Sciences Naturelles (*Society of Natural Sciences*).

Saint Gall.

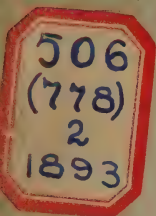
Naturwissenschaftliche Gesellschaft (*Society of Natural Sciences*).

Zürich.

Eidgenössische Polytechnische Schule (*Federal Polytechnic School*).

Naturforschende Gesellschaft (*Society of Naturalists*).

Fi. Cat.



THE
ACADEMY OF SCIENCE
OF SAINT LOUIS.

LIBRARY OF
Illinois State
LABORATORY OF NATURAL HISTORY,
URBANA, ILLINOIS.

1893.

THE
ACADEMY OF SCIENCE
OF SAINT LOUIS.

1893.

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OFFICERS FOR 1893.

PRESIDENT,

HENRY S. PRITCHETT.

FIRST VICE-PRESIDENT,

MELVILLE L. GRAY.

SECOND VICE-PRESIDENT,

GUSTAV BAUMGARTEN.

RECORDING SEC'Y,

ARTHUR THACHER.

CORRESPONDING SEC'Y,

W. TOWNSEND PORTER.

TREASURER,

ENNO SANDER,

LIBRARIAN,

GUSTAV HAMBACH.

CURATORS,

GUSTAV HAMBACH, EDMUND A. ENGLER,
ARTHUR THACHER.

DIRECTORS,

FRANCIS E. NIPHER, JAMES M. LEETE.

FOUNDING AND INCORPORATION.

The first recorded meeting of the Academy was on March 10, 1856, at the Hall of the Board of Public Schools, Dr. George Engelmann in the chair.

The gentlemen present were :

GEORGE ENGELMANN,
HIRAM A. PROUT,
MOSES M. PALLER,
BENJAMIN F. SHUMARD,
CHARLES A. POPE,
WILLIAM H. TINGLEY,
JAMES B. EADS,
WILLIAM M. MCPHEETERS,
SIMON POLLAK,
CHARLES W. STEVENS,
ADOLPHUS WISLIZENUS,
NATHANIEL HOLMES,
MOSES L. LINTON,
JOHN H. WATTERS,
CHARLES P. CHOUTEAU.

The meeting organized by adopting a Constitution and
By-Laws, and by electing as officers:

PRESIDENT,

GEORGE ENGELMANN.

FIRST VICE-PRESIDENT,

HIRAM A. PROUT.

SECOND VICE-PRESIDENT,

NATHANIEL HOLMES.

SECRETARIES,

BENJAMIN F. SHUMARD, WILLIAM H. TINGLEY.

TREASURER,

JAMES B. EADS.

CURATORS,

MOSES M. PALLER, BENJAMIN F. SHUMARD,
ADOLPHUS WISLIZENUS, CHARLES W. STEVENS.

BOARD OF COUNCIL,

GEORGE ENGELMANN, BENJAMIN F. SHUMARD,
HIRAM A. PROUT, WILLIAM H. TINGLEY,
NATHANIEL HOLMES, CHARLES A. POPE,
CHARLES P. CHOUTEAU.

The charter of the Academy was secured by act of the Legislature, and was accepted by vote of the Academy on February 9, 1857.

By the report of the President on January 11, 1858, it appears that the receipts during the previous year were \$1,378.45 and the expenditures \$1,071.58, showing that the new Academy had made a promising beginning. The same report shows that the progress in the collection of a library and museum had been equally satisfactory.

The meetings were held in rooms of Pope's Medical College until May, 1869, when this building with the museum was destroyed by fire. The library was saved. The meetings were thereafter held in the meeting hall of the school board and the library was transferred to the Public School Library rooms, where the books were kept separate from those of the Public Library.

During the fall of 1881, the library of the Academy was removed to its present quarters in Washington University. The library now contains about 15,000 volumes.

CHARTER.

AN ACT TO INCORPORATE "THE ACADEMY OF SCIENCE OF ST. LOUIS."

*Be it enacted by the General Assembly of the State of
Missouri, as follows:*

SECTION 1. That GEORGE ENGELMANN, HIRAM A. PROUT, NATHANIEL HOLMES, BENJAMIN F. SHUMARD, CHARLES W. STEVENS, JAMES B. EADS, MOSES M. PALLER, ADOLPHUS WISLIZENUS, CHARLES A. POPE, CHARLES P. CHOUTEAU, WILLIAM M. MCPHEETERS, and others—who have heretofore formed an association in the City of St. Louis, styled "THE ACADEMY OF SCIENCE OF ST. LOUIS," having for its object the advancement of science, and the establishment in said city of a museum and library for the illustration and study of its various branches—their associates and successors, are hereby declared and created a body corporate by the name and style aforesaid; and by that name they shall have perpetual succession, may sue and be sued, implead and be impleaded, in all courts of competent jurisdiction; may acquire by purchase, gift, or devise, receive and hold, property, real, personal, or mixed, and the same exchange, sell, lease, or otherwise dispose of, as they may deem proper, for the objects and purposes aforesaid, and not otherwise; may have a common seal, and break or alter the same at pleasure; and may make such Constitution, Regulations, and By-Laws, as may be requisite for the gov-

ernment thereof, not being contrary to the laws of the land, and may alter the same at pleasure.

SEC. 2. The Constitution and By-Laws of said association now in operation shall govern the corporation hereby created until the same shall be regularly altered or repealed, and the present officers of said association shall be officers of this corporation until their respective terms of office shall expire, or be vacated in pursuance thereof.

SEC. 3. The property and effects now belonging to the association aforesaid shall, on acceptance of this charter, thereby become vested in the corporation herein created, and all property owned or held by this corporation shall be exempt from taxation so long as the same shall continue to be held and used in good faith for the objects and purposes aforesaid; but whenever any real estate of the corporation shall be leased to any other person or persons, the leasehold interest therein shall be taxable to the lessee or lessees thereof, as in other cases.

SEC. 4. The members of this association acquire no individual property in the real estate, cabinets, library, or other effects thereto belonging, which are hereby declared to be fully vested in the corporation as such; but the interest of the members therein shall be usufructuary merely, and shall not be transferred, assigned, hypothecated, or otherwise disposed of, than as hereinbefore provided.

SEC. 5. Whenever this corporation shall have failed to answer the purposes for which it was created, or shall suffer its charter to be forfeited by the law of the land, its cabinet collections and library shall revert to and become vested in the City of St. Louis, to be deposited with some public institution in said city, for general use and inspection, under such regulations as the said city may prescribe.

SEC. 6. This act shall be taken as a public act, and be in force from and after its passage.

R. C. HARRISON,
Speaker of the House of Representatives.

H. JACKSON,
President of the Senate.

Approved, January 17, 1857.

TRUSTEN POLK.

CONSTITUTION.

ARTICLE I.

NAME.

SECTION 1. This Association shall be called "THE ACADEMY OF SCIENCE OF ST. LOUIS."

ARTICLE II.

OBJECT.

SECTION 1. It shall have for its object the promotion of science.

SEC. 2. As means to this end the Academy shall hold meetings for the consideration and discussion of scientific subjects; shall take measures to procure original papers upon such subjects; and shall, as often as may be practicable, publish its transactions. It shall also establish and maintain a cabinet of objects illustrative of the several departments of science, and a library of works relating to the same. It shall also place itself in communication with other scientific institutions.

ARTICLE III.

MEMBERS.

SECTION 1. The *Academy* shall consist of *Active Members*, *Corresponding Members*, *Honorary Members*, and *Patrons*.

SEC. 2. *Active Members* shall be persons interested in science, and they alone shall conduct the affairs of the Academy.

SEC. 3. Persons not living in the City or County of St. Louis who may be disposed to further the object of the Academy by original researches, contributions of specimens, or otherwise, may be elected *Corresponding Members*.

SEC. 4. Persons not living in the City or County of St. Louis may be elected *Honorary Members* by virtue of their attainments in science.

SEC. 5. Any person conveying to the Academy the sum of one thousand dollars (\$1,000), or its equivalent, may be elected a *Patron*.

SEC. 6. Persons may be admitted to any of the preceding classes of membership, or dismissed therefrom, in accordance with the regulations prescribed by the By-Laws.

ARTICLE IV.

OFFICERS.

SECTION 1. The officers of the Academy shall be chosen from the active members, and they shall consist of a

President,
1st Vice-President,
2nd Vice-President,
Recording Secretary,
Corresponding Secretary,
Treasurer,
Librarian,
Board of Curators,
Two Directors.

Said officers shall be elected at the time and in the manner prescribed by the By-Laws, and shall hold their offices for one year, or until their successors are elected.

SEC. 2. The duties of these officers shall be such as are customary and as prescribed by the By-Laws.

ARTICLE V.

COUNCIL.

SECTION 1. The President, the two Vice-Presidents, the Recording Secretary, and the two Directors shall constitute the Council of the Academy.

SEC. 2. The duties of the Council shall be to consider all plans conducive to the welfare of the Academy; to audit all bills and order payment of such as they may approve; to consider all applications for membership; and to administer the business of the Academy, subject to the Constitution and By-Laws and to such instructions as may be given by the Academy.

ARTICLE VI.

MEETINGS.

SECTION 1. The meetings of the Academy shall be held at such times and places as the By-Laws may direct.

ARTICLE VII.

AMENDMENTS.

SECTION 1. Amendments to this Constitution shall be submitted in writing at a regular meeting. They shall be open to discussion until at least the second meeting thereafter. They may then be adopted by a two-thirds vote of a letter-ballot, conducted in the manner prescribed by the Council.

ARTICLE VIII.

SECTIONS.

SECTION 1. To encourage and promote special investigations in any branch of science, members of the Academy may form sections which shall be constituted as herein provided.

SEC. 2. For the formation of a section written application shall be made to the Academy, at a regular meeting, by not less than six active members.

On the approval of this application by the affirmative vote of two-thirds of the members present at the next regular meeting, the section shall be established and the names of the petitioners shall be recorded on its minutes as its founders.

SEC. 3. Sections may increase the number of their members by election, but only members of the Academy shall be elected members of any of the sections.

SEC. 4. The officers of each section shall be a Chairman and a Secretary, who shall be elected by its members at the first meeting of the section, and subsequently at the first meeting in January of each year.

SEC. 5. The collections and books of each section are the common property of the Academy. Donations of books and specimens made to or for any section shall be received as donations to the Academy for the use of the section.

SEC. 6. A report of the proceedings of each section shall be submitted to the Academy at least once every month. Papers read before any section with a view to publication by the Academy shall take the same course as papers read before the Academy.

SEC. 7. On all points not herein provided for, each section shall be governed by the Constitution, By-Laws, and instructions of the Academy.

BY-LAWS.

I. REGULAR MEETINGS.

The regular meetings of the Academy shall be held on the first and third Monday evenings of every month, unless otherwise ordered by the Council.

II. SPECIAL MEETINGS.

Special meetings may be called by the President at his discretion, and shall be called by him on the written request of three or more members.

III. NOTICE OF MEETINGS.

The Recording Secretary shall send a notice of each meeting to every active member at least two days before such meeting.

IV. QUORUM.

Seven members shall constitute a quorum.

V. ORDER OF BUSINESS.

The order of proceeding, at the regular meetings of the Academy, shall be as follows:

1. Minutes of the last meeting.
2. Report of the Council.
3. Reports of Committees.
4. Report of the Corresponding Secretary.

5. Donations to the Museum and Library.
6. Written Communications.
7. Verbal Communications.
8. Deferred Business.
9. New Business.
10. Elections.
11. Proposals for Membership.
12. Adjournment.

VI. CORRESPONDING SECRETARY.

It shall be the duty of the Corresponding Secretary to conduct the correspondence and report to the Academy.

VII. TREASURER.

The Treasurer shall collect all moneys due the Academy; be custodian of all its funds, and pay such bills against the Academy as the Council shall approve. The Treasurer shall deposit the moneys and invest the funds of the Academy in its name by and with the advice of the Council. Besides his annual report to the Academy, the Treasurer shall make such further reports and statements concerning the financial affairs of the Academy as the Council may from time to time require. Before entering upon his duties, the Treasurer shall give bond in such sum as may be required by the Council.

VIII. LIBRARIAN.

The Librarian shall take charge of all books belonging to or deposited with the Academy, and shall be responsible for the same; he shall keep a catalogue thereof, in which the names of contributors shall be inscribed; he shall superintend the distribution of all the publications of the Academy.

IX. COUNCIL.

The Council shall act as a publication committee; shall prepare a programme for each meeting, and may make rules and regulations for their own guidance, not inconsistent with the Constitution and By-Laws.

X. ELECTION OF OFFICERS.

A nominating committee of three active members who are not officers of the Academy shall be elected at the first regular meeting in December. This Committee shall nominate candidates for all the offices for the ensuing year, and report the nominations at the following meeting, when other nominations may be made by any active member. The Recording Secretary shall mail to every active member a list of the nominees for office, at least ten days preceding the annual meeting. The polls shall be closed at 6 p. m. on the day of the annual meeting, after which the nominating committee shall count the ballots and announce the results to the Academy. A plurality of the votes cast shall suffice to elect.

XI. VACANCIES.

A vacancy in any office shall be filled by election conducted in the same manner as the annual election.

XII. ELECTION OF MEMBERS.

A candidate for admission to the Academy shall be proposed by not less than two members at any regular meeting. The proposal must then be referred to the Council, and if upon examination they shall find the candidate to be eligible and worthy of membership, they shall order the question as to his admission to be submitted to the Academy by ballot. If there be five votes in the negative,

the candidate shall be rejected, and shall not be again voted upon for twelve months after such rejection. But if the number of negative votes be less than five, the candidate shall be elected, but shall not be considered a member until he shall have paid the initiation fee and the annual dues for the current year. Any failure to pay the initiation fee and annual dues within thirty days after the candidate has been notified of his election, shall work a forfeiture of all rights under said election, if the Council shall so determine. No entry shall be made on the record of the rejection of any candidate.

XIII. RESIGNATION OF MEMBERS.

Any member whose dues have been fully paid, may withdraw from the Academy by a written resignation. Non-payment of dues for one year or longer may be treated as equivalent to resignation; but before any member is dropped from the rolls for delinquency, he shall be entitled to not less than four weeks' notice.

XIV. EXPULSION OF MEMBERS.

Upon the written request of five members, that, for cause stated, any member be expelled, the Council shall consider the matter, and if they deem it best, shall advise the member that his resignation will be accepted. He shall, however, have the right to demand and shall be given a copy of the charges against him, and shall have a reasonable time to present a written defense. The Council may then pass finally upon the matter, and if resignation has not been tendered, or a satisfactory defense made, may by an affirmative vote of four of their number expel the member, in which case they shall notify him and the Academy of their action, and his name shall be at once dropped from the list of members.

XV. INITIATION FEE AND DUES.

Resident active members shall pay an initiation fee of five dollars, and annual dues of six dollars, payable at the beginning of each year. Non-resident active members shall pay an initiation fee of five dollars and annual dues of one-half the dues for resident active members, payable at the beginning of each year.

XVI. HONORARY MEMBERS AND PATRONS.

Honorary Members and Patrons shall be recommended by the Council, and elected by the unanimous vote of the members present at any regular meeting.

XVII. PUBLICATIONS.

Patrons and all active members not in arrears shall be entitled to one copy of all the publications of the Academy issued subsequent to their election. Authors of papers shall be entitled to twenty extra copies of their individual papers.

XVIII. AUTHORITY.

On all points of order and procedure, not provided for in the Constitution and By-Laws, *Robert's Rules of Order* shall be the authority.

XIX. AMENDMENTS.

These By-Laws may be amended by a two-thirds vote of all the members present at any regular meeting, provided notice of the proposed amendment shall have been mailed to every member at least one week before the vote thereon is taken.

PAST PRESIDENTS.

GEORGE ENGELMANN,	Elected	Mar. 10, 1856.
BENJAMIN F. SHUMARD,	"	Jan. 12, 1857.
BENJAMIN F. SHUMARD,	"	Jan. 11, 1858.
ADOLPHUS WISLIZENUS,	"	Jan. 10, 1859.
HIRAM A. PROUT,	"	Jan. 2, 1860.
GEORGE ENGELMANN,	"	Jan. 7, 1861.
GEORGE ENGELMANN,	"	Jan. 6, 1862.
GEORGE ENGELMANN,	"	Jan. 5, 1863.
GEORGE ENGELMANN,	"	Jan. 4, 1864.
GEORGE ENGELMANN,	"	Jan. 2, 1865.
GEORGE ENGELMANN,	"	Jan. 8, 1866.
GEORGE ENGELMANN,	"	Jan. 7, 1867.
BENJAMIN F. SHUMARD,	"	Jan. 1, 1868.
BENJAMIN F. SHUMARD,	"	Jan. 4, 1869.
GEORGE ENGELMANN,	"	Jan. 3, 1870.
JOHN B. JOHNSON,	"	Jan. 16, 1871.
JAMES B. EADS,	"	Jan. 4, 1872.
JAMES B. EADS,	"	Jan. 6, 1873.
WILLIAM T. HARRIS,	"	Jan. 5, 1874.
WILLIAM T. HARRIS,	"	Jan. 4, 1875.
CHARLES V. RILEY,	"	Jan. 3, 1876.
CHARLES V. RILEY,	"	Jan. 15, 1877.
GEORGE ENGELMANN,	"	Jan. 7, 1878.
GEORGE ENGELMANN,	"	Jan. 6, 1879.
GEORGE ENGELMANN,	"	Jan. 5, 1880.
GEORGE ENGELMANN,	"	Jan. 3, 1881.

GEORGE ENGELMANN,	Elected	Jan. 3, 1882.
GEORGE ENGELMANN,	"	Jan. 2, 1883.
GEORGE ENGELMANN,	"	Jan. 7, 1884.
FRANCIS E. NIPHER,	"	Jan. 5, 1885.
FRANCIS E. NIPHER,	"	Jan. 4, 1886.
FRANCIS E. NIPHER,	"	Jan. 3, 1887.
FRANCIS E. NIPHER,	"	Jan. 16, 1888.
FRANCIS E. NIPHER,	"	Jan. 7, 1889.
FRANCIS E. NIPHER,	"	Jan. 6, 1890.
FRANCIS E. NIPHER,	"	Jan. 5, 1891.
HENRY S. PRITCHETT,	"	Jan. 4, 1892.
HENRY S. PRITCHETT,	"	Jan. 16, 1893.

ACTIVE MEMBERS.

Adams, Dr. Wellington,	516 N. Garrison Avenue.
Allen, E. T.,	404 Market Street.
Alt, Dr. A.,	3036 Locust Street.
Bakewell, Paul,	417 Olive Street.
Bagnal, E. I.,	{ Finney and Vandeventer Avenues.
Barck, Dr. C.,	2715 Locust Street.
Bartlett, Geo. M.,	215 Pine Street.
Bartlett, Leroy,	2631 Rutger Street.
Baumgarten, Dr. G.,	2643 Chestnut Street.
Blair, Albert,	506 Olive Street.
Blewett, Scott H.,	3675 Cook Avenue.
Bock, Dr. G. W.,	1112 St. Ange Avenue.
Boislinière, Dr. L. Ch.,	2303 Chestnut Street.
Boogher, John H.,	417 Olive Street.
Bouton, C. L.,	2909 Park Avenue.
Bremer, Dr. Ludwig,	2311 Lucas Place.
Brennan, Rev. Martin S.,	1414 O'Fallon Street.
Brookings, R. S.,	2329 Lucas Place.
Brown, D. S.,	2212 De Kalb Street.
Bryson, Dr. John P.,	209 Garrison Avenue.
Burroughs, W. S.,	244 Dickson Street.
Busch, Adolphus,	Busch Place.
Campbell, Dr. Given,	704 Taylor Avenue.
Carpenter, G. O., Jr.,	Russell & Compton Aves.
Carr, Paschall,	Equitable Building.
Casey, I. F.,	4th and Pine Streets.
Chaplin, W. S.,	Washington University.
Chase, Dr. E. C.,	3325 Morgan Street.
Chauvenet, Louis,	2703 Lucas Avenue.
Churchill, F. A., Jr.,	3113 Morgan Street.
Chouteau, C. P.,	3d and Pine Streets.

Collins, Robert E.,	3811 Westminster Place.
Comstock, Dr. T. G.,	507 N. 14th Street.
Coulter, Pres. John M.,	Bloomington, Ind.
Crunden, F. M.,	Public Library.
Cushman, Allerton S.,	603 Garrison Avenue.
Curtman, Dr. C. O.,	3718 N. 9th Street.
Dameron, E. C.,	University Club.
Davis, John T.,	{ Broadway and Wash- ington Avenue.
Dodd, S. M.,	{ American Central Building.
Douglas, Archer W.,	Simmons Hardware Co.
Drake, Geo. S.,	401 Washington Avenue.
Duenckel, F. W.,	1821 Schild Avenue.
Durant, Geo. F.,	Telephone Building.
Eliot, E. C.,	3650 Cook Avenue.
Eliot, H. W.,	2635 Locust Street.
Engelmann, Dr. G. J.,	3003 Locust Street.
Engler, Prof. E. A.,	Washington University.
Erker, A. P.,	617 Olive Street.
Evers, Dr. E.,	1861 N. Market Street.
Fairbanks, Dr. J. W.,	Smith Academy.
Fischel, Dr. Washington E.,	2647 Washington Avenue.
Fletcher, Wendell C.,	1045 Goodfellow Avenue.
Forbes, Prof. S. A.,	Champaign, Ill.
Frank, Christian,	1600 Franklin Avenue.
Glasgow, Dr. F. A.,	2608 Locust Street.
Glasgow, Dr. William C.,	2847 Washington Avenue.
Goodman, Dr. C. H.,	2728 Washington Avenue.
Graham, B. B.,	3500 Morgan Street.
Gray, M. L.,	3756 Lindell Avenue.
Green, Dr. John,	2670 Washington Avenue.
Gregory, Dr. E. H.,	3525 Lucas Avenue.
Grindon, Dr. Jos.,	507 Ware Avenue.
Haarstick, Henry C.,	Main and Walnut Streets.
Hammon, W. H.,	{ United States Weather Bureau.
Hambach, Dr. G.,	Washington University.
Hardaway, Dr. W. A.,	2920 Locust Street.
Harrison, Edwin,	520 Olive Street.

Hasse, Dr. Otto,	4300 Easton Avenue.
Hayes, Richard,	Polytechnic Building.
Heller, Prof. Otto,	Washington University.
Herthel, A.,	International Bank.
Heussy, Dr. F.,	3108 Wisconsin Avenue.
Hicks, Prof. Frederick C.,	Columbia, Mo.
Hitchcock, Henry,	404 Market Street.
Hodgman, C.,	300 N. 4th Street.
Holmes, John M.,	506 Olive Street.
Hulbert, Dr. G.,	3026 Pine Street.
Hummel, Chas.,	{ Room 408 Temple Building.
Hurter, Julius,	2346 S. 10th Street.
Ives, Prof. H. C.,	School of Fine Arts.
Jester, E. T.,	{ Care of Liggett & My- ers Tobacco Co.
Jewett, E. C.,	U. S. Assay Office.
Johnson, Dr. J. B.,	{ N. E. cor. 22d and Lo- cust Streets.
Johnson, Prof. J. B.,	Washington University.
Johnson, R. D'O.,	Elvino, Mo.
Kaime, D. F.,	3717 Delmar Avenue.
Kennett, A. Q.,	University Club.
Kinealy, Prof. J. H.,	Washington University.
Kinner, Dr. H.,	1103 Autumn Street.
Kotany, Dr. Ludwig,	2647 Washington Avenue.
Kolbenheyer, Dr. F.,	1208 Dillon Street.
Krall, G. W.,	Manual Training School.
Kribben, B. D.,	216 Commercial Building.
Kriekhaus, Aug.,	410 S. Main Street.
Kromrey, Hugo,	513 Walnut Street.
Ladd, A. E.,	Cambridge, Mass.
Lackland, R. J.,	1623 Lucas Place.
Leete, Dr. J. M.,	2912 Washington Avenue.
Leighton, Geo. E.,	803 Garrison Avenue.
Leighton, Geo. B.,	204 N. Third Street.
Lemoine, Dr. E. S.,	1622 Washington Avenue.
Letterman, Geo. W.,	{ Allenton, St. Louis County.
Leslie, A. M.,	915 Olive Street.

Lind, Dr. G. D.,	5063 Minerva Avenue.
Lingenfelder, Dr. Ph.,	319 Clark Avenue.
Lionberger, John R.,	27 Vandeventer Place.
Ludeking, Dr. Chas.,	Stamford, Conn.
McKittrick, Hugh,	2913 Locust Street.
Mack, Chas. I.,	113 N. Broadway.
Madill, Geo. A.,	2821 Chestnut Street.
Meisenbach, Dr. A. H.,	2229 S. Broadway.
Meston, A. W.,	513 Elm Street.
Miller, Charles F.,	1751 Missouri Avenue.
Moore, Robert,	Laclede Building.
Moore, Dr. W. G.,	3041 Easton Avenue.
Morton, I. W.,	Simmons Hardware Co.
Mudd, Dr. H. H.,	2604 Locust Street.
Nagel, Chas.,	{ 709 Bank of Commerce Building.
Nelson, N. O.,	8th & St. Charles Streets.
Nipher, Prof. F. E.,	Washington University.
O'Rielly, Dr. Robert J.,	1722 Washington Avenue.
Palfrey, Capt. C. F.,	2732 Pine Street.
Pammel, Prof. L. H.,	Ames, Iowa.
Parker, Josiah H.,	400 N. 3d Street.
Parsons, Charles,	2804 Pine Street.
Pegram, Geo. H.,	Omaha, Neb.
Pettus, W. H. H.,	2834 Chestnut Street.
Pike, S. B.,	{ American Central Building.
Pollmann, Dr. L. P.,	2822 N. 14th Street.
Porter, Dr. Wm. Townsend,	{ St. Louis Medical College.
Post, Dr. M. H.,	2641 Washington Avenue.
Potter, Prof. Wm. B.,	Washington University.
Prewitt, Dr. T. F.,	31st and Pine Streets.
Pritchett, Prof. H. S.,	Washington University.
Pulsifer, Wm. H.,	Newton Centre, Mass.
Purinton, Prof. Geo. D.,	Columbia, Mo.
Raeder, F. Wm.,	Equitable Building.
Ramel, A.,	Washington University.
Rankin, E. E.,	Smith Academy.
Ravold, Dr. A. N.,	2806 Morgan Street.

NAMES OMITTED.

Olshausen, Geo. R.,	.	.	.	.	1228 Dolman Street.
Sanger, Prof. C. R.,	.	.	.	.	Washington University.
Wheeler, O. B.,	.	.	.	.	1515 Lucas Place.



Rigge, Wm. F., S. J.,	St. Louis University.
Robert, E. S.,	417 Pine Street.
Robertson, Charles,	Carlinville, Ill.
Ruebel, Ernst,	807 Locust Street.
Runge, Dr. E. C.,	4515A Easton Avenue.
Sander, Dr. Enno,	129 S. 11th Street.
Schoelch, Louis,	2823 Nebraska Avenue.
Schwartz, Dr. Henry,	1723 Chouteau Avenue.
Schwerdtman, F.,	1822 Olive Street.
Schweitzer, Prof. Paul,	Columbia, Mo.
Sears, Edmund H.,	Mary Institute.
Seddon, J. A.,	1515 Lucas Place.
Seddon, W. L.,	1515 Lucas Place.
Senseney, Dr. E. M.,	2829 Washington Avenue.
Sheldon, W. L.,	4213 Olive Street.
Shepley, John F.,	50 Vandeventer Place.
Sluder, Dr. Greenfield,	2647 Washington Avenue.
Smith, Dr. D. S. H.,	3846 Washington Avenue.
Smith, Holmes,	Washington University.
Smith, Irwin Z.,	University Club.
Snow, Prof. M. S.,	Washington University.
Speck, Judge Chas.,	1206 Morrison Avenue.
Spiegelhalter, Dr. Jos.,	2166 Lafayette Avenue.
Spencer, Dr. H. N.,	2725 Washington Avenue.
Stagl, Charles,	406 N. 3d Street.
Staudinger, B.,	1703 Olive Street.
Steedman, Dr. I. G. W.,	2803 Pine Street.
Stewart, A. K.,	2613A Palm Street.
Straub, A. W.,	International Bank.
Taussig, Dr. William,	3447 Lafayette Avenue.
Thacher, A.,	{ St. Louis Sampling and Testing Works.
Tivy, Wm. H.,	207 N. 2d Street.
Toensfeldt, John,	912 S. 9th Street.
Trelease, Prof. Wm.,	Mo. Botanical Garden.
Turner, T. D.,	1004 Garrison Avenue.
Updegraff, Prof. Milton,	Columbia, Mo.
Walsh, Edward, Jr.,	417 Olive Street.
Watts, Millard F.,	3452 Chestnut Street.
Wheeler, Prof. H. A.,	Washington University.

Whitaker, Edwards,	300 N. 4th Street.
Whitelaw, Oscar L.,	409 N. 2d Street.
Widmann, Otto,	Old Orchard, Mo.
Winslow, Arthur,	Jefferson City, Mo.
Wislizenus, Frederick,	19 S. Broadway.
Witt, T. D.,	E. Jaccard Jewelry Co.
Wolfner, Dr. Henry L.,	2236 Washington Avenue.
Woodward, Prof. C. M.,	Washington University.
Yeatman, James E.,	412 Olive Street.

CORRESPONDING MEMBERS.

The dates given are the dates of election to membership.

Agard, Dr. A. H., Sandusky, Ohio, . . .	<i>Sept. 2, 1867.</i>
Agassiz, Alexander, Cambridge, Mass., . .	<i>April 16, 1866.</i>
Anguiano, F. Angel, Director del Observa- tori Nacional de Mexico, Tacubaya, Mexico,	<i>Nov. 2, 1885.</i>
Aughey, Samuel,	<i>June 5, 1876.</i>
Bandelier, Adolph F., Jr., Highland, Ills., .	<i>Sept. 3, 1860.</i>
Barcena, Mariano, City of Mexico, . . .	<i>March 1, 1875.</i>
Barris, Willis H., Davenport, Iowa, . . .	<i>June 15, 1857.</i>
Berchon, Ernest, Bordeaux,	<i>June 19, 1865.</i>
Behr, Dr. Hermann, San Francisco, Cal., .	<i>Dec. 15, 1856.</i>
Bigelow, John M., Detroit, Mich., . . .	<i>Feb. 16, 1863.</i>
Blake, James, M. D., San Francisco, Cal., .	<i>March 18, 1861.</i>
Bosquet, Prof. I., Maestricht, Germany, .	<i>March 17, 1862.</i>
Capellini, Prof. Giovanni, University of Bo- logna, Italy,	<i>Nov. 2, 1863.</i>
Case, Francis M., Denver, Col.,	<i>April 20, 1863.</i>
Case, Theo. S., Kansas City, Mo.,	<i>March 2, 1885.</i>
Castillo, Antonio del, City of Mexico, . .	<i>March 1, 1875.</i>
Clifford, D.,	<i>July 4, 1871.</i>
Cochrane, J., Havana, Ill.,	<i>April 15, 1878.</i>
Coues, Elliott, M. D., Washington, D. C., .	<i>May 2, 1864.</i>
Danckelman, Dr. A. von, Berlin,	<i>Feb. 16, 1885.</i>
Dudding, Richard, Murphysboro, Ill., . .	<i>May 4, 1857.</i>
Dyer, F. M., Charleston, Mo.,	<i>May 21, 1877.</i>
Ehrenberg, Hermann, Arizona,	<i>Sept. 5, 1859.</i>
Fleming, Dr. R. B., Mine de la Motte, Mo., .	<i>Feb. 9, 1857.</i>

Foster, Mrs. Abner, Beardstown, Ill., . . .	<i>Nov. 18, 1878.</i>
Fry, Maj. Cary H., Fort Union, New Mexico, . .	<i>Oct. 6, 1856.</i>
Green, Samuel M., Cape Girardeau, Mo., . .	<i>May 21, 1877.</i>
Gregorio, Marchese Antonio de, via Molo, Palermo, Sicily,	<i>April 20, 1885.</i>
Gill, Prof. Theodore, Washington, D. C., . .	<i>March 5, 1866.</i>
Goodnow, Isaac T., Leavenworth, Kas., . .	<i>Aug. 21, 1865.</i>
Hall, Prof. James, Albany, N. Y.,	<i>Sept. 8, 1866.</i>
Hann, Dr. J., Vienna,	<i>May 16, 1881.</i>
Hauer, Dr. Franz Ritter von, Vienna,	<i>May 16, 1881.</i>
Hilgard, Prof. E. W., Berkely, Cal.,	<i>Sept. 3, 1860.</i>
Hilgard, G., Belleville, Ill.,	<i>Feb. 5, 1877.</i>
Hitchcock, C. H., Hanover, N. H.,	<i>Oct. 15, 1860.</i>
Hitchcock, G. N., San Diego, Cal.,	<i>Jan. 4, 1876.</i>
Holden, Prof. E. S., Lick Observatory, Cal., .	<i>April 4, 1881.</i>
Holmes, Nathaniel, Cambridge, Mass., . . .	<i>June 18, 1883.</i>
Hough, Daniel, Indianapolis, Ind.,	<i>Feb. 15, 1875.</i>
Howland, H. B., Buffalo, N. Y.,	<i>March 19, 1877.</i>
Huguet-Latour, Capt. L. A., (now Major), Vice-President of National Historical Society, Montreal, Canada,	<i>Sept. 21, 1857.</i>
Hunt, T. Sterry, Ph. D., A.A.S., Montreal, Canada, E.,	<i>Sept. 21, 1857.</i>
Irwin, J. T., Ravenna, Mo.,	<i>May 6, 1861.</i>
Johnson, Dr. H., Jacksonville, Ill.,	<i>Feb. 17, 1873.</i>
Jones, John P., Keytesville, Mo.,	<i>March 16, 1874.</i>
Koelle, John, Berkner Station, Ill.,	<i>Feb. 5, 1877.</i>
Lane, Judge E., Chicago, Ill.,	<i>March 23, 1857.</i>
Lee, W. J., Iron Ridge, Mo.,	<i>Feb. 3, 1873.</i>
Mason, Otis T., National Museum, Wash- ington,	<i>1881.</i>
Marcou, Prof. Jules, Geologist, Cambridge, Mass.,	<i>Sept. 3, 1860.</i>
McAdams, Wm., Jr., Jerseyville, Ill., . . .	<i>Feb. 21, 1859.</i>
Mueller, Baron Ferdinand von, Melbourne, Aus.,	<i>June 18, 1883.</i>
Newberry, Dr. J. S., Columbia College, N. Y.,	<i>Oct. 7, 1861.</i>
Norwood, Chas. J., Columbia, Mo.,	<i>May 17, 1875.</i>
Norwood, J. G., M. D., Columbia, Mo., . .	<i>May 19, 1856.</i>

Parker, J. C., San Diego, Cal.,	<i>Jan. 3, 1876.</i>
Patrick, J. R., Belleville, Ill.,	<i>March 6, 1876.</i>
Peter, Prof. Robert, M. D., Lexington, Ky.,	<i>March 17, 1862.</i>
Phillips, Henry, Jr., 209 S. 15th Street, Philadelphia,	<i>April 4, 1881.</i>
Pratt, George C.,	<i>Nov. 21, 1881.</i>
Putnam, F. W., Cambridge, Mass.,	<i>March 19, 1877.</i>
Rauch, John H., M. D., Burlington, Iowa, .	<i>Oct. 6, 1856.</i>
Riley, C. V., Washington, D. C.,	<i>Dec. 15, 1879.</i>
Sawyer, Amos, Hillsboro, Ill.,	<i>May 4, 1874.</i>
Spencer, Prof. J. W.	<i>Jan. 21, 1884.</i>
Stanton, F. J., Denver, Col.,	<i>June 1, 1874.</i>
Stone, George C., New York,	<i>Feb. 20, 1882.</i>
Swallow, Prof. G. C., Helena, Mont.	<i>June 16, 1856.</i>
Teff, J. E., Springfield, Mo.,	<i>June 19, 1874.</i>
Vasey, George, M. D., Washington, D. C. .	<i>Jan. 7, 1861.</i>
Wadsworth, Dr. J. L. R., Collinsville, Ill., .	<i>Dec. 20, 1880.</i>
Weber, L., Belleville, Ill.,	<i>Feb. 5, 1877.</i>
Wheelock, L. P., Sandusky, Ohio,	<i>Sept. 2, 1867.</i>
Wilson, George, Lexington, Mo.,	<i>March 17, 1884.</i>
Yoakum, Dr. F. L., Larissa, Texas,	<i>Feb. 21, 1870.</i>

A LIST OF THE SOCIETIES AND INSTITUTIONS RECEIVING THE PUBLICATIONS.

ALGERIA.

Algiers.

Société des Sciences Physiques Naturelles et Climatologiques de l'Algérie.

ARGENTINE REPUBLIC.

Buenos Aires.

Museo Publico de Buenos Aires.

Sociedad Cientifica Argentina.

Statistical Bureau.

Cordoba.

Academia Nacional de Ciencias Exactes.

Academia Nacional de Ciencias en Cordoba.

Observatorio Nacional Argentino en Cordoba.

AUSTRIA-HUNGARY.

Bistritz (*Transylvania*).

Siebenbürgische Gewerbe-Schule.

Brunn (*Moravia*).

K. K. Mährisch-Schlesische Gesellschaft für Ackerbau, Natur- und Landeskunde.

Naturforschender Verein.

Budapest (*Hungary*).

Ethnologische Mitteilungen aus Ungarn.

K. Ung. Geologische Anstalt.

K. Magyar Természettudo mányi Társulat (*Royal Hungarian Society of Natural Sciences*).

K. Magyar Tudományos Egyetem (*Royal Hungarian University*).

K. Magyar Tudományos Akademia (*Hungarian Academy*).

Természetráji Füzetek (*Journal of the Hungarian National Museum*).

Gratz (*Styria*).

Industrie-und Gewerbe-Verein.

Naturwissenschaftlicher Verein für Steiermark.

Hermannstadt (*Transylvania*).

Siebenbürgischer Verein für Naturwissenschaften.

Verein für Siebenbürgische Landeskunde.

Klagenfurt (*Carinthia*).

Naturhistorisches Landesmuseum für Kärnten.

Klausenburg (*Transylvania*).

Ertesítő az Erdélye Museum — Egylet Orvos — Természettudományi Szakosztályábáé (*The Medical and Natural Science Section of the Museum-Association of Transylvania*).

Laibach (*Illyria*).

Landes-Museum (*National Museum*).

Leipa (*Bohemia*).

Nord-Böhmischer Excursions-Club.

Linz (*Austria*).

Museum Francisco-Carolinum.

Prag (*Bohemia*).

K. Böhmisches Gesellschaft der Wissenschaften.

Lotos (Naturwissenschaftlicher Verein) Gesellschaft
für Physiokratie. Akademie čisare Frantiska
Josefa pro vedy, slovesnost a umeni v Praze.

Pressburg (*Hungary*).

Verein für Natur-und Heilkunde.

Reichenberg (*Bohemia*).

Verein der Naturfreunde.

Salzburg (*Salzburg*).

Vaterländisches Museum Carolino-Augusteam.

Trieste (*Illyria*).

Società Adriatica di Scienze Naturali.

Museo Civico di Storia Naturale.

Trencsén (*Hungaria*).

Naturwissenschaftlicher Verein des Trencsiner Comitates.

Wien (*Austria*).

Anthropologische Gesellschaft.

Kaiserliche Akademie der Wissenschaften — Universitäts-Platz 2.

K. K. Central-Anstalt für Meteorologie und Erdmagnetismus.

K. K. Geographische Gesellschaft.

K. K. Geologische Reichsanstalt.

K. K. Naturhistorisches Hof-Museum.

K. K. Zoologisch-Botanische Gesellschaft.

Oesterreichischer Touristen Club.

Verein zur Verbreitung naturwissenschaftlicher Kenntnisse.

Wien (Continued).

Verein zur Förderung des Landwirthschaftlichen
Versuchswesen in Oesterreich.
Oesterreichischer Alpen-Club.
Niederösterreichischer Forstverein.
Oesterreichischer Reichsforstverein.

BELGIUM.

Anvers.

Académie d'Archéologie de Belgique.

Bruxelles.

Académie Royale des Sciences, des Lettres et des
Beaux Arts de Belgique.
Observatoire Royal.
Société Belge de Microscopie.
Société Entomologique de Belgique.
Société Malacologique de Belgique.
Société Royale de Botanique de Belgique.
Société Scientifique de Bruxelles.
Société Royale Belge de Géographie.
Société Royale Linnéenne de Bruxelles.
Société Scientifique Flammarion d'Ixelles-Bruxelles.

Liége.

Société Géologique de Belgique.

Louvain.

Université Catholique.

BRAZIL.

Rio Janeiro.

Instituto Historico, Geografico y Ethnografico.
Nautical Observatory.

CANADA.

Halifax (*Nova Scotia*).

Nova Scotia Institute of Natural Sciences.

Hamilton.

The Hamilton Association.

Montreal (*Quebec*).

Royal Society of Canada.

The Natural History Society of Montreal.

Ottawa (*Ontario*).

Institut Canadian Français.

Geological and Natural History Survey of Canada.

Quebec (*Quebec*).

Entomological Society of Canada.

Literary and Historical Society of Quebec.

Université Laval.

Toronto (*Ontario*).

Canadian Institute.

Winnipeg (*Manitoba*).

Manitoba Historical and Scientific Society.

CHILE.

Santiago.

Deutscher Wissenschaftliche Verein.

Société Scientifique du Chili.

CORSICA.

Bastia.

Société des Sciences Historiques et Naturelles de la
Corse.

COSTA RICA.

San José.

Central Office of Statistics and Meteorology.
Museo Nacional.

DENMARK.

Kjobenhavn.

Kongelige Danske Videnskabernes Selskab (*Royal
Danish Society of Sciences*).

ENGLAND.

Alnwick.

Berwickshire Naturalists' Club.

Bristol.

Bristol Naturalists' Society.

Halifax.

Yorkshire Geological and Polytechnical Society
(formerly in Leeds).

Kew.

Botanical Garden.

Leeds.

(Quarterly) Journal of Conchology.
Leeds Philosophical and Literary Society.

Liverpool.

Biological Society.

London.

British Museum (Great Russell Street, Bloomsbury,
W. C.).
Entomological Society (11 Chandos Street, Caven-
dish Square, W.).

London (Continued).

“Nature” (care of Macmillan & Co., Bedford Street, Strand, W. C.).

Royal Geographical Society of London (1 Saville Row, W.).

Royal Microscopical Society (King’s College, Strand, W. C.).

Royal Society of London (Burlington House, W.).

Manchester.

Literary and Philosophical Society of Manchester (36 George Street).

Microscopical Society.

Newcastle-upon-Tyne.

Natural History Society of Northumberland, Durham, and Newcastle-upon-Tyne (*Museum, Newcastle*).

York.

Yorkshire Philosophical Society.

FRANCE.

Abbeville.

Société d’Emulation d’Abbeville.

Alais.

Société Scientifique et Littéraire d’Alais.

Amiens.

Société Linnéenne du Nord de la France.

Académie des Sciences, des Lettres, et des Arts d’Amiens.

Angers.

Société d'Etudes Scientifiques.

Académie des Sciences et Belles-Lettres d'Angers.

Arras.

Académie des Sciences, Lettres et Arts d'Arras.

Autun.

Société d'Histoire Naturelle d'Autun.

Auxerre.

Société des Sciences Historiques et Naturelles de
l'Yonne.

Avranches.

Société Académique du Cotentin.

Bar-le-Duc.

La Société des Lettres, Sciences et Arts de Bar-le-Duc.

Bayeux.

Société des Sciences, Arts et Belles-Lettres de
Bayeux.

Bayonne.

Société des Sciences et Arts de Bayonne.

Besançon.

Société d'Emulation du Doubs.

Bordeaux.

L'Académie Nationale des Sciences, Belles-Lettres et
Arts de Bordeaux.

Société Linnéenne de Bordeaux.

Société des Sciences Physiques et Naturelles.

Caen.

Académie Nationale des Sciences, Arts, et Belles
Lettres.

Société Linnéenne de Normandie.

Faculté des Sciences de Caen Laboratoire de
Géologie.

Châlons-sur-Marne.

Société d'Agriculture, Commerce, Sciences et Arts
du Département de la Marne.

Chambéry.

Académie des Sciences, Belles-Lettres et Arts de
Savoie.

Cherbourg (*Manche*).

Société Nationale des Sciences Naturelles de Cher-
bourg.

Société Académique de Cherbourg.

Dijon.

Académie des Sciences, Arts, et Belles-Lettres de
Dijon.

Draguignan.

Société d'Etudes Scientifiques et Archéologiques de
la Ville de Draguignan.

Elbœuf.

Société d'Etudes des Sciences Naturelles d'Elbœuf.

Epinal.

Société d'Emulation du Département des Vosges.

Evreux.

Société libre d'Agriculture, Sciences, Arts et Belles-
Lettres de l'Eure.

Grenoble.

Académie Delphinale.
Faculté des Sciences.

Lyon.

Académie des Sciences, Belles-Lettres, et Arts de
Lyon.
Musée Guimet.
Société d'Agriculture, Histoire Naturelle et Arts
Utiles.
L'Université de Lyon.
Société Linnéenne de Lyon.

Marseille.

Académie des Sciences, Lettres et Arts.
Société Scientifique Industrielle de Marseille.

Montauban.

Académie des Sciences, Belles-Lettres et Arts de
Tarn-et-Garonne.

Montpellier.

Académie des Sciences et Lettres de Montpellier.

Nancy.

Société des Sciences de Nancy.
Académie de Stanislas.

Nevers.

Société Nivernaise de Lettres, Sciences et Arts.

Nice.

Société des Lettres, Sciences, et Arts des Alpes-
Maritimes.

Niort.

Société de Statistique, Sciences, Lettres et Arts du
Département des Deux-Sèvres.

Paris.

École Polytechnique.
Journal de Micographie.
Revue Archéologique.
Société d'Anthropologie (15 rue de l'École de
Médecine).
Société d'Ethnographie (47 Avenue Duquesne).
Société Zoologique de France.
Ecole Normale Supérieure.
Institut Pasteur.
Société de Biologie.
Institut National Agronomique.
Académie des Sciences.
Société Académique Indo-Chinoise de France.
Association Scientifique de France fondée par Le
Verrier.
Museum d'Histoire Naturelle.
Revue Géographique Internationale.

Pau.

Société de Sciences, Lettres, et Arts.

Perpignan.

Société Agricole, Scientifique et Littéraire des Pyrénées-Orientales.

Reims.

Académie Nationale de Reims.
Société d'étude des Sciences Naturelles de Reims.

Rouen.

Société des Amis des Sciences Naturelles de Rouen.
Académie des Sciences, Belles-Lettres et Arts de
Rouen.

Saint-Brieuc.

Société d'Emulation des Côtes du Nord.

Saint-Dié (*Vosges*).

Société Philomathique Vosgienne.

Saint-Dizier (*Haute-Marne*).

Société des Lettres, des Sciences, des Arts, de l'Agriculture et de l'Industrie de Saint-Dizier.

Toulouse.

Association Pyrénéenne et de l'Union des Sociétés Savantes du Midi.

Académie des Sciences, Inscriptions et Belles-Lettres de Toulouse.

Bibliothèque de la Faculté des Sciences de Toulouse.

Vendôme (*Loire et Cher*).

Société Archéologique, Scientifique et Littéraire du Vendômois.

Vitry-le-François.

Société des Sciences et Arts de Vitry-le-François.

GERMANY.

Altenburg.

Naturforschende Gesellschaft des Osterlandes.

Augsburg (*Bavaria*).

Naturhistorischer Verein.

Bamberg.

Naturforschende Gesellschaft.

Berlin (*Prussia*).

Botanischer Verein der Provinz Brandenburg.
Deutsche Chemische Gesellschaft.
Gesellschaft Naturforschender Freunde.
Königliche (Preussische) Akademie der Wissenschaften.
Verein zur Beförderung des Gartenbaues in den
Königlich Preussischen Staaten.
Gesellschaft für Erdkunde.
Deutsche Geologische Gesellschaft.
Kaiserliches Gesundheits-Amt.
Deutsche Landwirthschafts-Gesellschaft.

Bonn.

Naturhistorischer Verein der Preussischen Rhein-
lande und Westfalens.

Braunschweig (*Brunswick*).

Verein für Naturwissenschaften.

Bremen.

Naturwissenschaftlicher Verein.
Geographische Gesellschaft in Bremen.

Breslau (*Silesia*).

Schlesische Gesellschaft für Vaterländische Cultur.

Chemnitz (*Saxony*).

Naturwissenschaftliche Gesellschaft.

Danzig (*Prussia*).

Naturforschende Gesellschaft.

Darmstadt (*Hesse*).

Verein für Erdkunde und Verwandte Wissenschaften.

Dresden (*Saxony*).

Naturwissenschaftliche Gesellschaft "Isis."

Verein für Erdkunde.

Gesellschaft für Natur-und Heil-Kunde.

Königliches Zoologisches u. Anthropologisch-Ethnographisches Museum.

Durkheim (*Bavaria*).

"Pollichia," Naturwissenschaftlicher Verein der Rheinpfalz.

Emden (*Prussia*).

Naturforschende Gesellschaft.

Erfurt (*Prussia*).

Akademie gemeinnütziger Wissenschaften.

Frankfurt-am-Main.

Ärztlicher Verein.

Senckenbergische Naturforschende Gesellschaft.

Verein für Geographie und Statistik (Care of Stadt-Bibliothek).

Frankfurt-an-der-Oder.

Naturwissenschaftlicher Verein des Regierungsbezirkes Frankfurt-a. O.

Freiburg-im-Breisgau (*Baden*).

Naturforschende Gesellschaft.

Giessen (*Hesse*).

Oberhessische Gesellschaft für Natur-und Heilkunde.

Görlitz (*Prussia*).

Naturforschende Gesellschaft.

Göttingen (*Prussia*).

Königliche Gesellschaft der Wissenschaften.

Greifswald (*Prussia*).

Geographische Gesellschaft.

Naturwissenschaftlicher Verein für Neu-Vorpommern
und Rügen in Greifswald.

Güstrow (*Mecklenburg*).

Verein der Freunde der Naturgeschichte in Mecklen-
burg.

Halle-an-der-Saale (*Prussia*).

Kaiserliche Leopoldini Carolina Akademie der
Deutschen Naturforscher.

Naturforschende Gesellschaft.

“Zeitschrift für die gesammten Naturwissen-
schaften” (formerly in Berlin).

Verein für Erdkunde.

Landwirthschaftliches Institut.

Hamburg (*Prussia*).

Naturwissenschaftlicher Verein Hamburg-Altona.

Hanau (*Hesse*).

Wetterauische Gesellschaft für die gesammte Natur-
kunde.

Hannover (*Prussia*).

Gesellschaft für Mikroskopie.

Naturhistorische Gessellschaft zu Hannover.

Heidelberg (*Baden*).

Naturhistorisch-Medicinischer Verein.

Jena.

Jenaische Zeitschrift für Medicin und Naturwissenschaften.

Geographische Gesellschaft (für Thüringen) zu Jena.

Karlsruhe (*Baden*).

Naturwissenschaftlicher Verein.

Kassel (*Prussia*).

Verein für Naturkunde.

Kiel (*Prussia*).

Königliche Sternwarte.

Naturwissenschaftlicher Verein für Schleswig-Holstein.

Königsberg-in-Preussen (*Prussia*).

Königliche (Ostpreussische) Physikalisch-Oekonomische Gesellschaft.

Landshut (*Bavaria*).

Botanischer Verein.

Leipzig (*Saxony*).

Dr. Felix Flügel (39 Sidonien Strasse) (Agent of the Smithsonian Institution).

Königlich-Sächsische Gesellschaft der Wissenschaften.

Naturforschende Gesellschaft.

Verein für Erdkunde.

Zoologischer Anzeiger.

Lüneburg (*Prussia*).

Naturwissenschaftlicher Verein.

Luxemburg (*Luxemburg*).

Institute Luxembourgeois, Section des Sciences
Naturelles et Mathematiques.

Magdeburg (*Saxony*).

Naturwissenschaftlicher Verein in Magdeburg.

Mannheim (*Prussia*).

Verein für Naturkunde.

Marburg (*Prussia*).

Gesellschaft zur Beförderung der gesammten Natur-
wissenschaften.

Metz (*Lorraine*).

Academie de Metz.

Société d'Histoire Naturelle de Metz.

Verein für Erdkunde.

München (*Bavaria*).

Königlich-Baierische Akademie der Wissenschaften.

Deutscher und Oesterreichischer Alpenverein.

Münster (*Prussia*).

Provinzial-Verein für Wissenschaft und Kunst.

Nürnberg (*Bavaria*).

Naturhistorische Gesellschaft.

Offenbach (*Baden*).

Verein für Naturkunde.

Osnabrück (*Hanover*).

Naturwissenschaftlicher Verein.

Passau (*Bavaria*).

Naturhistorischer Verein.

Posen (*Prussia*).

Historische Gesellschaft für die Provinz Posen.

Regensburg (*Bavaria*).

Historischer Verein für die Oberpfalz.

Königliche Baierische Botanische Gesellschaft.

Zoologisch-Mineralogischer Verein.

Stettin (*Prussia*).

Entomologischer Verein.

Stuttgart (*Württemberg*).

Verein für vaterländische Naturkunde in Württemberg.

Mathematisch-Naturwissenschaftlicher Verein in Württemberg.

Thorn (*Prussia*).

Copernicus-Verein für Wissenschaft und Kunst.

Wiesbaden (*Prussia*).

Verein für Naturkunde.

Wurzburg (*Bavaria*).

Physikalisch-Medizinische Gesellschaft.

GUATEMALA.

Guatemala.

Secretaria de Formento.

INDIA.

Bombay (*Bombay*).

The Bombay Natural History Society.

Calcutta (*Bengal*).

The Asiatic Society of Bengal.
The Indian Museum.

IRELAND.

Belfast.

Belfast Naturalists' Field Club.

Dublin.

Royal Dublin Society (Kildare Street).
Royal Geological Society of Ireland.
Royal Irish Academy.

ITALY.

Bologna.

Accademia delle Scienze dell'Istituto de Bologna.

Catania.

Accademia Gioenia de Scienze Naturali.

Firenze (*Florence*).

Biblioteca Nazionale.
Istituto di Studi Superiori in Firenze.
Nuovo Giornale Botanico Italiano.
R. Accademia Economico — Agraria dei Georgofili di
Firenze.

Genova (*Genoa*).

Accademia delle Scienze, Lettere ed Arti.
Società dei Naturalisti.
Società Ligustica di Scienze Naturali e Geografiche
Museo Civico di Storia Naturale di Genova.

Milano (*Milan*).

Fondazione Scientifica Cagnola (Branch of the R.
Istituto Lombardo).

R. Istituto Lombardo di Scienze, Lettere ed Arti.
Società Italiana di Scienze Naturali.

Modena.

R. Accademie di Scienze, Lettere ed Arti.

Napoli (*Naples*).

R. Accademia delle Scienze e Belle Lettere.

Accademia Pontaniana.

Società di Naturalisti in Napoli.

Accademia delle Scienze fisiche e matematiche di
Napoli.

Padova (*Padua*).

R. Accademia di Scienze, Lettere, ed Arti di Padova.

Società Veneto-Trentina di Scienze Naturali residente
in Padova.

Palermo.

Società d'Acclimazione e di Agricoltura in Sicilia.

Hortus Botanicus Panormitanus.

Pisa.

Società Toscana di Scienze Naturali.

Roma.

Biblioteca Nazionale Vittorio Emanuele.

R. Comitato Geologico d'Italia.

Società Italiana della Scienze.

Accademia dei Lincei.

Istituto d'Igiene sperimentale della R. Università di
Rome.

Roma (Continued).

Stazione Agrarie e dei Laboratori di Chimica Agraria
del Regno.

Siena.

R. Accademia dei Fisiocritici in Siena.

Torino (*Turin*).

R. Museo Zoologico di Torino.

Club Alpino Italiano.

Accademia delle Scienze di R. Torino.

Venezia (*Venice*).

R. Istituto Veneto di Scienze, Lettere ed Arti.

JAMAICA.

Kingston.

Public Gardens.

Institute of Jamaica.

JAPAN.

Tokio.

Tokio Daigaku (*Imperial University*) (Formerly
Kaisei Gakko).

Deutsche Gesellschaft für Natur-und Völkerkunde
Ost-Asiens in Tokio.

JAVA.

Batavia.

Magnetic and Meteorological Observatory.

MEXICO.

Mexico.

- El Museo Nacional.
- Ministerio de Fomento, Colonizacion, Industria y Comercio.
- Observatorio Astronomico Nacional
- Sociedad "Andres del Rio."
- Sociedad Mexicana de Geografia y Estadistica.
- Sociedad Mexican de Historia Natural.
- Sociedad Cientifica "Antonio Alzate."
- Deutscher Wissenschaftlicher Verein in Mexico.

NETHERLANDS.

Amsterdam.

- Koninklijke Akademie van Wetenschappen (*Royal Academy of Sciences*).
- Koninklijke Zoologische Genootschap "Natura Artis Magistra" (*Royal Zoological Society*).
- Nederlandsche Aardrijkskundig Genootschap (*Netherlands Geographical Society*).
- Genootschap ter bevordering van Natuur —, Genees-
sen Heelkunde to Amsterdam (*Society for
the Advancement of the Natural, Therapeutic
and Medical Sciences*).

Haarlem (*Noord Holland*).

- Fondation de P. Teyler van der Hulst (*Teyler Institution*).
- Hollandsche Maatschappij van Wetenschappen
(*Holland Society of Sciences*).

Leiden (*Zuid Holland*).

- Nederlandsche Dierkundige Vereeniging (*Netherlands Zoological Society*).
- Rijks Observatorium (*Royal Observatory*).

Middelburg (Zealand).

Zeeuwsch Genootschap van Wetenschappen (*Zealand Society of Sciences*).

Rotterdam (Zuid Holland).

Bataafsch Genootschap der Proefondervindelijke Wijsbegeerte (*Batavian Society of Experimental Philosophy*).

Utrecht.

Koninklijk Nederlandsche Meteorologisch Institute (*Royal Dutch Meteorological Institute*).

Provinciaal Utrechtsch Genootschap van Kunstan en Wetenschappen (*Provincial Society of Arts and Sciences*).

Zwolle (Overijssel).

Overijsselsche Vereeniging tot Ontwikkeling van Provinciaale Welvaart (*Overijssel Society for the Promotion of Provincial Welfare*).

NEW SOUTH WALES.

Sydney.

Royal Society of New South Wales.

Linnean Society of New South Wales.

Australian Museum.

Department of Mines, Geological Survey.

NORWAY.

Bergen.

Bergen's Museum.

Christiania.

Det Kongelige Norske Frederiks Universitet (*Royal Norwegian Frederick University*).

Throndhjem.

Kongelige Norske Videns-Kabers Selskabs (*Imperial
Norwegian Scientific Society*).

Tromsøe.

Museum.

PORTUGAL.

Lisboa (*Lisbon*).

Academia Real des Ciencias.

Sociedad de Geografia.

QUEENSLAND.

Brisbane.

Royal Geographical Society of Australasia (*Queens-
land Branch*).

Queensland Museum.

ROUMANIA.

Bukarest.

Societate de Science Fizice.

Accademia Româna.

RUSSIA.

Derpt (*Dorpat*).

Naturforscher-Gesellschaft.

Derptskoie Obshchestvo Iestesto-Ispytalelei (*Dorpat
Society of Naturalists*).

K. Livländische Oekonomische Gesellschaft.

Helsingfors.

Sällskapet pro Fauna et Flora Fennica (*Society for
the Fauna and Flora of Finland*).

Kazan.

Imper. Kazanskii Universitet (*Imperial University of
Kazan*).

Kiew.

Société des Naturalistes de Kiew.

Krakau.

Académie des Sciences de Cracovie.

Moskva (*Moscow*).

Imper. Moskofskoie Obshchestyo-Ispytatetei (*Imperial Moscow Society of Naturalists*).

Meteorological Observatory of the Agricultural Academy.

Odessa.

Société des Naturalistes de la Nouvelle Russie.

Riga.

Obshchestyo Iestestyo-Ispytatelei (*Society of Naturalists*).

Sankt-Petersburg (*St. Petersburg*).

Imper. Bibliothek (*Royal Library*).

Imper. Akademia Nauk (*Imperial Academy of Science*).

Imper. Russkoie Geograficheskoe Obshchestyo (*Imperial Russian Geographical Society*).

Institut Impérial de Médecine Expérimentale.

Imper. Sankt-Peterburgskii Botanicheskii Sad (*Imperial Botanical Garden of St. Petersburg*).
(Packages sent through Wm. Mintor, Wandrahm Brucke 6, Hamburg, Germany).

Imper. Sankt-Petersburgskoie Mineralogicheskoe Obshchestyo (*Imperial Mineralogical Society of St. Petersburg*).

Tiflis.

Magnitnaia i Meteorologicheskaja Observatorio
(*Magnetic and Meteorological Observatory*).

SCOTLAND.

Edinburgh.

Edinburgh Geological Society.
Royal Physical Society.
Royal Scottish Society of Arts.
Royal Society of Edinburgh.

Glasgow.

Geological Society (76 Henderson Street).
Natural History Society of Glasgow (207 Bath Street).
Philosophical Society (207 Bath Street).

SINGAPORE.

Singapore.

Straits Branch of the Royal Asiatic Society.

SOUTH AUSTRALIA.

Adelaide.

Royal Society of South Australia.

SPAIN.

Barcelona.

Academia de Ciencias, Artes, y Oficios para la Mujer.

Cordova.

Academia Nacional de Ciencias Exactas.

Madrid.

Observatorio de Madrid.
Real Academia de Ciencias de Madrid.
Socièdad Espanola de Historia Natural.

SWEDEN.

Lund.

Kongliga Universitet.

Stockholm.

Entomologiske Tidsskrift (*Entomological Journal*).

Kongligi Svenska Vetenskaps Akademien (*Royal Swedish Academy of Sciences*).

Biologiska Föreningens (*Biological Society*).

National Historical Museum.

Upsala.

Kongliga Vetenskaps Societaten (*Royal Society of Sciences*).

Vesteras.

Riksbiblioteket (*State Library*).

SWITZERLAND.

Aarau.

Mittelschweizerische Geographisch-commercielle Gesellschaft.

Aargauische Naturforschende Gesellschaft.

Basel.

Naturforschende Gesellschaft.

Bern.

Allgemeine Schweizerische Gesellschaft für die gesammten Naturwissenschaften.

Naturforschende Gesellschaft.

Schweizer Alpen-Club.

Chur.

Naturforschende Gesellschaft Graubündens.

Frauenfeld.

Thurgauische Naturforschende Gesellschaft.

Fribourg.

Société Fribourgeoise des Naturalistes.

Genève.

Institut National Genévois.

Société de Physique et d'Histoire Naturelle de
Genève.

Lausanne.

Société Vaudoise des Sciences Naturelles.

Université de Lausanne.

Musée d'Histoire Naturelle de Lausanne.

Neufchatel.

Société des Sciences Naturelles.

Saint Gall.

Naturwissenschaftliche Gesellschaft.

Zürich.

Eidgenössische Polytechnische Schule.

Naturforschende Gesellschaft.

Schweizerischer Alpen Club.

Schweizerischer Forst-Verein.

TASMANIA.

Hobarttown.

Royal Society of Tasmania.

UNITED STATES.

Albany, N. Y.

New York State Library.

New York State Museum of Natural History.

Ann Arbor, Mich.

Library of the University of Michigan.

Austin, Tex.

The Texas Academy of Science.

State Library of Texas.

Geological Survey of Texas.

Baltimore, Md.

American Chemical Journal.

Biological Laboratory.

Johns Hopkins University.

Maryland Academy of Sciences.

Peabody Institute Library.

Baton Rouge, La.

State University Library.

Boston, Mass.

American Academy of Arts and Sciences.

Massachusetts Horticultural Society.

Society of Natural History.

Boston Public Library.

Brookville, Ind.

Brookville Society of Natural History.

Buffalo, N. Y.

Buffalo Society of Natural Sciences.

Cambridge, Mass.

Cambridge Entomological Club.

Harvard College Observatory.

Harvard College Library.

Museum of Comparative Zoology.

Cambridge, Mass. (Continued).

Peabody Museum of American Archæology and
Ethnology.

Champaign, Ills.

State Laboratory of Natural History.

Chapel Hill, N. C.

Elisha Mitchell Scientific Society.

Charleston, S. C.

Elliot Society of Science and Art.

Charlottesville, Va.

Library of the University of Virginia.

Chicago, Ills.

Chicago Academy of Sciences.

Historical Society.

Public Library.

Cincinnati, O.

Ohio Mechanics' Institute.

Society of Natural History.

Cleveland, O.

Academy of Science.

Columbia, Mo.

Missouri State University Library.

Davenport, Ia.

Davenport Academy of Natural Sciences.

Denver, Colo.

Colorado Scientific Society.

Des Moines, Ia.

Iowa Academy of Science.

Golden, Colo.

State School of Mines.

Good Hope, Ills.

American Antiquarian.

Granville, O.

Denison Scientific Association.

Hanover, N. H.

Dartmouth College Library.

Houston, Tex.

State Geological and Scientific Association.

Ithaca, N. Y.

Cornell University.

Jefferson City, Mo.

Missouri State Library.

State Geological Survey.

Kansas City, Mo.

The Academy of Science.

Knoxville, Tenn.

East Tennessee University Library.

Lincoln, Neb.

Nebraska University.

Louisville, Ky.

Public Library of Kentucky.

Madison, Wis.

Academy of Science, Arts, and Letters.

Madison, Wis. (Continued).

Natural History Society of Wisconsin.

State Historical Society.

Washburn Observatory.

Wisconsin University Library.

Meriden, Conn.

Scientific Association.

Milwaukee, Wis.

Naturhistorischer Verein.

Public Museum of Milwaukee.

Minneapolis, Minn.

The Minnesota Academy of Natural Science.

Mount Hamilton, Cal.

Lick Observatory.

New Brighton, N. Y.

Natural Science Association of Staten Island.

New Haven, Conn.

Astronomical Observatory of Yale University.

Connecticut Academy of Science.

American Journal of Science.

Yale University Library.

New Orleans, La.

Academy of Science.

New York, N. Y.

Academy of Science.

American Geographical Society.

Chemical Society.

Microscopical Society.

New York, N. Y. (Continued).

Association of Engineering Societies.
Journal of Otology.
Astor Library.
American Entomologist.
Linnaean Society of New York.
Torrey Botanical Club.
American Museum of Natural History.
Mathematical Society.

Northfield, Minn.

Carleton College Observatory.

Peoria, Ill.

Scientific Association.

Philadelphia, Pa.

Academy of Natural Science.
American Philosophical Society.
American Entomological Society.
Journal of Comparative Medicine and Surgery.
Numismatic and Antiquarian Society.
Zoological Society.
Library Company.
Pharmaceutical Association.
Polyclinic.
Pennsylvania Woman's Medical College.
Wagner Free Institute of Science.
Journal of Pharmacy.

Portland, Me.

Society of Natural History.

Poughkeepsie, N. Y.

Vassar Brothers Institute.

Princeton, N. J.

Museum of Geology and Archæology.

Rochester, N. Y.

Rochester Academy of Science.

Rolla, Mo.

Missouri School of Mines.

Sacramento, Cal.

State Mining Bureau.

Salem, Mass.

Essex Institute.

Peabody Academy of Science.

San Diego, Cal.

San Diego Society of Natural History.

San Francisco, Cal.

California Academy of Science.

Technical Society of the Pacific Coast.

Astronomical Society of the Pacific.

Geographical Society of California.

Santa Barbara, Cal.

Society of Natural History.

Sedalia, Mo.

Sedalia Natural History Society.

Springfield, Ills.

Geological Survey of Illinois.

Springfield, Mo.

During College Library.

St. Louis, Mo.

Journal of Ophthalmology.
Missouri Botanical Garden.
Washington University Library.
St. Louis University Library.
Public Library.
Mercantile Library.

St. Paul, Minn.

Geological and Natural History Survey of Minnesota.

Topeka, Kas.

Kansas Academy of Science.

Trenton, N. J.

Trenton Natural History Society.

Urbana, O.

Central Ohio Scientific Association.

Washington, D. C.

American Academy of Medicine.
United States War Department. Engineer Department, U. S. A.
Chief Signal Office.
Geological Survey.
United States Fish Commission.
Department of Agriculture.
Bureau of Education.
Smithsonian Institution.
United States Naval Observatory.
Bureau of Ethnology.
Bureau of Entomology.
Philosophical Society.

Worcester, Mass.

American Antiquarian Society.

Worcester Society of Antiquity.

VICTORIA.

Melbourne.

Royal Society of Victoria.

National Museum of Victoria.

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